

AD-A243 034



2

DLA-91-P10173

PRIMARY DISTRIBUTION SITE (PDS) LOCATION ANALYSIS

August 1991

OPERATIONS RESEARCH AND ECONOMIC ANALYSIS OFFICE



DEPARTMENT OF DEFENSE
DEFENSE LOGISTICS AGENCY

91-16926-12

91-16926



REPRODUCTION OF THIS DOCUMENT IS
APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION UNLIMITED

DLA-91-P10173

**PRIMARY DISTRIBUTION SITE (PDS)
LOCATION ANALYSIS**

August 1991

Capt David Bertrand, USAF

Accession For	
NSA	<input checked="" type="checkbox"/>
OSI Tab	<input type="checkbox"/>
Admission	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Avail and/or	
Dist	Special
A-1	

**DEPARTMENT OF DEFENSE
DEFENSE LOGISTICS AGENCY
OPERATIONS RESEARCH AND ECONOMIC ANALYSIS OFFICE
CAMERON STATION
ALEXANDRIA, VA 22304-6100**





DEFENSE LOGISTICS AGENCY

HEADQUARTERS
CAMERON STATION
ALEXANDRIA, VIRGINIA 22304-6100

DLA-LO

FOREWORD

This report presents the results of an analysis of alternative configurations for the consolidation of Department of Defense (DoD) supply depots. This consolidation is being undertaken by the Defense Logistics Agency (DLA) under Defense Management Review Decision (DMRD) 902. The DLA Depot Consolidation Office (DLA-OC) has developed a concept for managing the consolidation depots using Primary Distribution Sites (PDSs). Given acceptance of the PDS concept, the purpose of this analysis was to determine how many PDSs there should be, and where they should be located.

Two key assumptions were used in the analysis. First, a demand based stockage policy was used, where each site serves all the customers in an assigned area. The second assumption involved the workload at sites not functioning as PDSs, i.e., those sites which would remain as satellite or specialized stockage requirements. It is expected that the conclusions of this study will be reexamined as other ongoing and planned research efforts provide further insight into these and other study assumptions.

The results of the analysis indicated that a three PDS configuration consisting of Mechanicsburg/New Cumberland, PA, Memphis, TN and Tracy/Sharpe, CA, provided the lowest cost while not overly exceeding the sites' capacities to process the workload. A sensitivity analysis was performed to test the effect of a reduced workload level on the results. Demand Levels within the Continental United States (CONUS) were lowered 15 percent, while east coast overseas demand was reduced 50 percent. The same three site configuration was recommended based on this analysis. A two site system with Mechanicsburg/New Cumberland and Tracy/Sharpe was possible with the reduced workload; however, workload at the Pennsylvania site was deemed too far above capacity to recommend this configuration. Further analysis showed that a reduction of 25 to 30 percent in CONUS demand combined with a 50 percent reduction in east coast overseas demand could make the two site configuration a viable option.

This study represents one of a series of ongoing and planned research efforts needed to assure best business policies and practices in support of the DoD depot consolidation initiative.


ROGER C. ROY
Assistant Director
Office of Policy and Plans

LIST OF TABLES

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Example Apportionment of Vendor Shipments.....	8
2	Generic DLA Unit Costs.....	12

LIST OF FIGURES

<u>Number</u>	<u>Title</u>	<u>Page</u>
1	Analysis Process.....	5
2	36 Demand Area Boundaries.....	7
3	12 Site (Baseline) Configuration.....	7
4	Example Transportation Cost Modification.....	11
5	Scenario Flow (Part 1).....	14
6	9 Site Configuration.....	15
7	6 Site Configuration.....	15
8	Scenario Flow (Part 2).....	16
9	4 Site Configuration.....	17
10	Results of 4 Site Scenario.....	17
11	3 Site Configuration.....	19
12	Results of 3 Site Scenario.....	19
13	Scenario Flow: Reduced Workload (Part 1).....	21
14	Scenario Flow: Reduced Workload (Part 2).....	22
15	Results of 4 Site Scenario (Low Wkld).....	23
16	Results of 3 Site Scenario (Low Wkld).....	23
17	Results of 2 Site Scenario (Low Wkld).....	24
18	2 Site Sensitivity Analysis.....	24

EXECUTIVE SUMMARY

Under the Defense Management Review Decision (DMRD) 902 the Defense Logistics Agency (DLA) is undertaking the consolidation of material distribution functions at approximately 30 Department of Defense (DoD) supply depots. To do this, the DLA Depot Consolidation Office (DLA-OC) has developed a concept using Primary Distribution Sites (PDSs) as the hubs of the distribution network. The DLA Operations Research and Economic Analysis Management Support Office (DLA-DORO) has performed this analysis at their request to determine how many PDSs there should be and where they should be located.

Two key assumptions were made in the analysis. First, a demand based stockage policy was used, where each site serves all the customers in an assigned area exclusively, with no out of area shipments. The second assumption involved the workload at sites not functioning as a PDS. These satellite or specialized sites would process slower moving items, support maintenance missions, stock Service managed items and other specialized stockage requirements. The exact workload generated by these activities is unknown, but was assumed to equate to half the current wholesale issue workload at Service depots, and one quarter of current workload at DLA depots.

An iterative procedure was used to reach the final results. This procedure began with a baseline configuration of 12 sites, selected because they had the potential to handle a large wholesale issue workload. Follow-on scenarios consisted of different configuration options for reducing the number of PDSs. For each scenario, each of 36 geographic demand areas were assigned to the closest PDS; workload at each site was determined by summing the customer demand in its assigned demand areas. Total workload at each site was then compared to that PDS's capacity to process wholesale issues; each site was allowed to exceed its capacity by up to 25 percent. This 25 percent margin was allowed because workload capacities are not firm ceilings, and we did not wish to eliminate sites unless the amount over capacity was clearly significant. From the baseline, sites exceeding capacity by more than 25 percent were eliminated as a PDS; in later scenarios, configurations where a site exceeded this figure were considered infeasible.

The next step in the analysis was to calculate the total costs of the feasible scenarios. [NOTE: Due to the level of detail and the assumptions made, costs used in this analysis should be used for comparison of alternatives within this study only; they should not be used in any other context.] Total cost included cost of first destination (inbound) transportation, second destination (outbound) transportation, and receipt and issue processing. If more than one feasible scenario existed for a given number of PDSs, the low cost configuration was chosen. The cost was then compared to the cost of the previously accepted scenario. If the cost was lower, the new scenario was accepted, scenarios for further reducing the number of PDSs were defined, and the iterations were continued until no lower cost feasible scenario could be found.

The results of this process showed that costs were reduced as the number of PDS locations declined. It is therefore most economical to process the workload in as few sites as possible. This drove the results to those sites with the ability to handle the most workload; capacity to process the issue workload thus became the main factor in determining PDS location. Given these factors, a three PDS configuration of Mechanicsburg/New Cumberland, PA, Memphis, TN, and Tracy/Sharpe, CA, was the low cost feasible scenario.

A sensitivity analysis was next performed to determine how a decrease in workload would affect the results. The same procedure was used, but demand within the CONUS was reduced 15 percent across the board, and east coast overseas demand reduced 50 percent. Although the path of the analysis was slightly different, the same three site result was reached. Because of the reduced workload, a two site configuration of Mechanicsburg/New Cumberland and Tracy/Sharpe was technically feasible; however, since Mechanicsburg/New Cumberland exceeded its capacity by almost 20 percent, it was deemed unacceptable as a final solution. A decrease in CONUS demand of 25 to 30 percent, however, combined with the 50 percent reduction in east coast overseas demand would be required to make a two-site configuration feasible in terms of capacity.

I. INTRODUCTION

A. Background. As one of the major initiatives to improve the efficiency of operations in the Department of Defense (DoD), the Defense Management Review Decision (DMRD) 902 proposed the consolidation of approximately 30 DoD supply depots. On 12 April 1990, Deputy Secretary of Defense, Donald J. Atwood approved the consolidation of materiel distribution functions at Defense supply depots under the Defense Logistics Agency (DLA). To implement this decision, the DLA Depot Consolidation Office (DLA-OC) developed a distribution concept using Primary Distribution Sites (PDSs).

A PDS is a major distribution facility that is the primary shipping, receiving, returns processing, and freight consolidation hub for a geographic region. Depots other than PDSs would be satellite or specialized sites, which serve specialized stockage requirements such as support to maintenance activities, bulk items, hazardous items, and low activity/inactive items. Either type of site may be a single depot or a cluster of closely located depots. To assist in implementing this concept, DLA-OC requested that the DLA Operations Research and Economic Analysis Management Support Office (DLA-DORO) perform an analysis to assess the proper number and location of PDSs within the consolidated DoD depot system.

B. Purpose. The purpose of this study was to determine how many PDSs should be included in the consolidated DoD depot system, and where they should be located, based on anticipated workload, depot capacities, and total system cost.

C. Objectives.

1. Identify a baseline system of those defense depots with the potential to function as a PDS.
2. Define follow-on scenarios for reducing the number of PDSs from the baseline system.
3. Calculate the total system cost of the various scenarios, to include transportation and processing costs.
4. Find the system configuration that gives the lowest system cost without overtaxing the capacities of the depots.

D. Scope.

1. This analysis does not seek to validate the PDS concept for performing DoD distribution functions. It is solely concerned with finding the best way to implement that concept.

2. This analysis, although performing calculations at the item level, evaluates workload and capacities at an aggregate level. Recommendations on stockage locations for specific items is not an objective of this study.

3. Only wholesale distribution functions are considered in the analysis. Retail distribution functions are assumed to remain in place at their current levels.

4. Current throughput capacities of the depots are used; upgrades to facilities not already completed or near completion were not considered. Thus, capital investment costs were not considered.

5. Bin second destination transportation costs are not considered, because data could not be obtained in sufficient detail within the timeframe required. Moreover, due to the amount of shipment consolidation done in the analysis, the cost of bin transportation would not significantly affect the conclusions of the study.

6. Demand history covering fourth quarter FY89 through third quarter FY90 is used in the analysis. Foreign Military Sales (FMS) and subsistence items are not included.

7. Throughput capacities at the depots are based on maximum throughput in an 8-hour day, 260 days per year.

8. Costs developed in this study should be used only for comparison of alternatives within the framework of this analysis, due to the assumptions made and the aggregate level of detail. Specifically, these costs should not be used for planning or budgeting purposes.

9. Only recurring operating costs of the depot system were evaluated in this study. Startup costs for implementing the PDS concept, such as for automation or telecommunications links (as part of the Defense Distribution System (DDS)), Reductions in Force (RIF), or personnel transfers are not included.

10. This analysis did not, and was never intended to, identify depots for closure. All DoD depots were assumed to continue to function, if not as a PDS then at a reduced workload level in support of specialized and local missions.

II. CONCLUSIONS

o Reducing the number of PDS locations lowers the overall cost of the system. This is driven by the fact that vendors are making fewer and larger shipments to the sites, reducing both the inbound transportation costs and the total receipt processing costs. Outbound transportation costs increased with fewer PDSs, but not enough to counteract these reductions.

o Issue workload capacity at a site is the biggest factor in determining PDS selection. Since costs go down as the number of PDSs goes down, it is most economical to process the workload in as few sites as possible. This necessarily drives the results to those sites with the ability to handle a large amount of wholesale issue workload.

o Given these factors, a distribution configuration with three PDS sites located at Mechanicsburg/New Cumberland, PA, Memphis, TN, and Tracy/Sharpe, CA, is the low cost feasible solution. There are, however, capacity overages of approximately 10 percent at Memphis and Tracy/Sharpe which would need to be dealt with.

o A two PDS configuration may be feasible in the future should requisition workload decrease significantly. In order for two sites - Mechanicsburg/New Cumberland and Tracy/Sharpe - to handle the workload, requisitions from within the contiguous United States (CONUS) would need to drop by 25 to 30 percent, along with a 50 percent drop in east coast overseas requisitions.

III. RECOMMENDATIONS

o Recommend that Mechanicsburg/New Cumberland, PA, Memphis, TN, and Tracy/Sharpe, CA, be selected as PDSs under the DLA-OC developed concept for the consolidation of distribution functions.

o Should wholesale requisition frequency decline significantly (as described in II.D.), recommend the Memphis, TN, site be considered for conversion to a satellite site. An update to this analysis would probably be appropriate before this step is taken.

IV. BENEFITS. The analysis shows that reducing the number of PDSs lowers total costs: given the assumptions of the study, a cost reduction of approximately \$20 million was seen in reducing from 12 to 3 PDS locations. This does not include savings due to reducing from the original 30 depots to the 12 site baseline. Nor does it include economy of scale savings which would result from such a consolidation both in terms of overhead/general support and operationally within the depot.

V. METHODOLOGY

A. Assumptions.

1. Transportation costs for the consolidated system would be similar to the costs DLA experiences under the Guaranteed Traffic Program.

2. A demand based stockage policy will be used, and each depot will supply all items with demand in its area. This assumption is critical to the analysis; use of a different stockage policy could potentially change the conclusions.

3. The characteristics of total DoD first destination shipments, such as locations of vendors and types of items shipped, are similar to those for DLA.

4. Under the baseline scenario, overseas demand areas were assigned to Mechanicsburg/New Cumberland, PA, (east coast) and Tracy/Sharpe, CA, (west coast).

5. If not selected as a PDS, non-DLA depots retain half of their current wholesale issue workload; DLA depots keep one quarter of their current issues. Therefore, the issue workload to be distributed among PDS sites is the total DoD workload less this "fixed" workload. This fixed workload is the current best estimate of what would be processed at non-PDS locations, consisting of slow-moving items, maintenance mission support, Service managed items, etc.

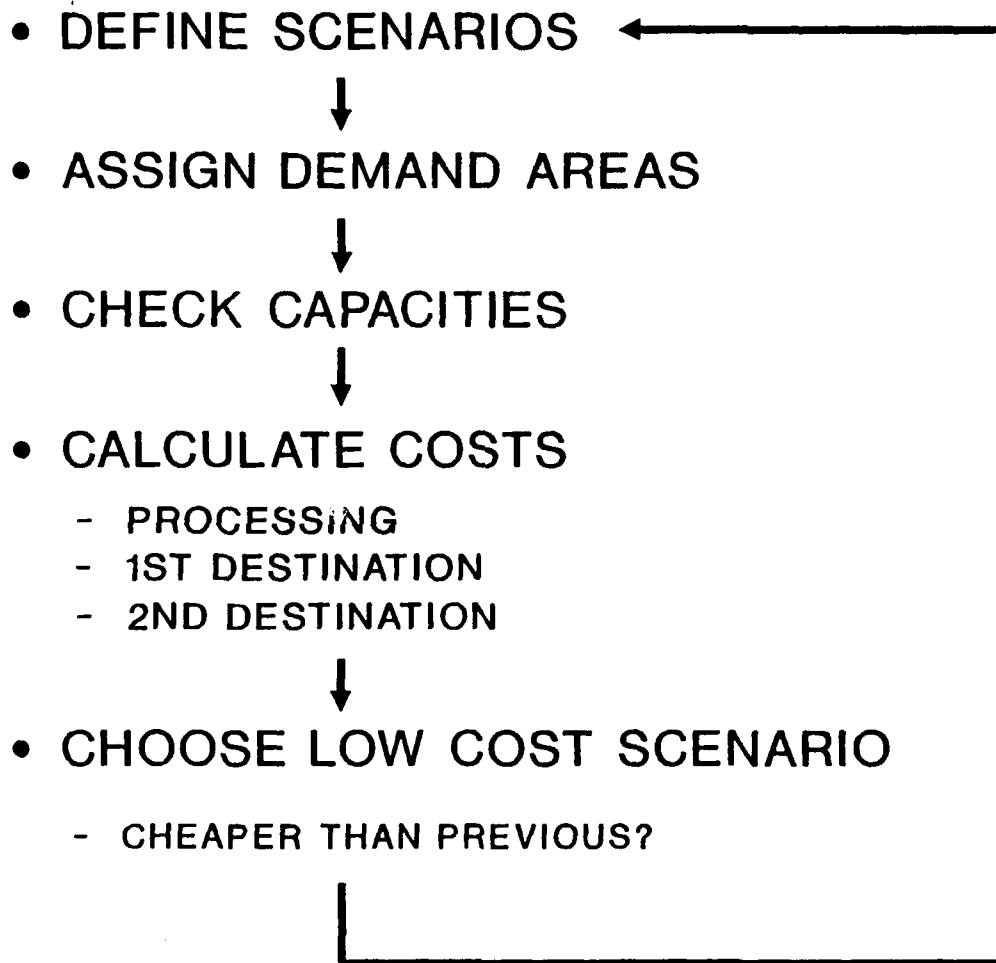
B. Overview. The analysis was an iterative process, illustrated in Figure 1. The first step was to define several scenarios by varying the location to eliminate as a PDS. For each scenario, geographic demand areas were assigned to each PDS based on minimum distance. The total customer demand in the areas assigned to each PDS were summed to obtain the issue workload at each PDS. These workload figures were then compared to each site's capacity for processing wholesale issues; if none of the PDSs exceeded their wholesale issue capacity by more than 25 percent, the scenario was considered "feasible." This 25 percent margin was allowed because workload capacities are not firm ceilings, and we did not wish to eliminate sites unless the amount over capacity was clearly significant. Infeasible scenarios were dropped; for the remainder, the costs of first destination (inbound) transportation, second destination (outbound) transportation, and receipt and issue processing were calculated. If there was more than one feasible scenario, the lowest cost scenario was chosen. This scenario was then compared to the previously accepted scenario, to see if cost was reduced by moving to this new PDS configuration. If so, the new scenario was accepted, and the iteration was repeated. If not, additional checks would be made to ensure the low cost feasible scenario was found.

C. Data Sources.

1. Capacity. Data on wholesale issue throughput capacity was provided by DLA-OC based on input they received from DLA and Service representatives. Surge capacity for combined mechanized and non-mechanized was used. This data was updated to account for recently or nearly completed mechanization upgrades. A table of the resulting yearly throughput capacities is included in Appendix A. This data reflects the maximum number of wholesale requisitions that could be processed during one 8-hour shift, 260 workdays per year.

2. Workload. Current workload at each site was provided by DLA-OC from data obtained by Service representatives. A summary of this data is included in Appendix B. This workload was summed to give the total DoD workload for the entire depot system. DLA workload data was obtained from Material Release Order (MRO) files off the DLA Integrated Data Bank (DIDB), and was used as a basis to factor up to total DoD level, since detailed data on non-DLA requisitions was unavailable.

Figure 1
ANALYSIS PROCESS



3. Transportation. First destination transportation data was generated from DORO contract files maintained on the DIDB, and factored up to the estimated DoD level. Second destination data for all of DoD was obtained from the Freight Information System (FINS) file maintained by the Military Transportation Management Command (MTMC).

4. Costs. DLA unit costs were obtained from the September 1990 unit cost spreadsheets, provided by the DLA Comptroller's office. These spreadsheets reflected year end FY90 costs. This data was used to calculate "generic" unit costs used for all sites, as described in Section V.G. below.

D. Demand Workload.

1. Geographic Distribution. The CONUS was divided into geographic demand areas to group sources of demand (customers). A map of these demand areas is shown in Figure 2. The areas were based on demand clusters developed previously by DORO; these 78 CONUS clusters were aggregated to 34 demand areas for faster processing. A group of clusters were aggregated if, regardless of scenario, they would all be assigned to the same PDS location. In addition, all overseas sources of demand were aggregated to two demand areas, east coast and west coast, for a total of 36 demand areas.

2. Source. The next step was to determine the number of requisitions made by customers in each demand area. The issue workload can be thought of as two types. First, each depot has a "fixed workload" that it will process regardless of whether it functions as a PDS or not. As previously stated, this workload was assumed to equal one-half of current workload at Service depots and one-fourth current workload at DLA depots. The remainder of the workload, the part we'll call the "PDS workload," is that which will be processed only at sites functioning as a PDS in a given scenario. Total PDS workload was derived by subtracting the total fixed workload at all depots - including those not in the 12 site baseline - from the total current DoD workload. These workload statistics are listed in Appendix B. Since detailed data on total DoD requisitions were not available, DLA data files were used to determine the total number of DLA requisitions made by customers in each demand area. This data was then factored up to better reflect the total anticipated PDS workload at a DoD level.

E. Scenario Definition.

The analysis began by considering all the DoD supply depots scheduled to be transferred to DLA. From these, the baseline scenario was defined by choosing those sites which could reasonably have the potential to function as a PDS. This selection was based on each depot's current wholesale issue workload; this data, for those in and out of the baseline, is listed in Appendix B. The cutoff for inclusion was 600,000 requisitions per year (except for NSC Oakland, which was excluded due to selection for base closure). The 12 sites selected for the baseline configuration are shown on the map at Figure 3. Each of the 34 CONUS demand areas was assigned to the closest of the 12 sites using mileages from the Household Goods Carriers' Bureau National 3-Digit Zip Code Mileage Guide.

Figure 2
36 DEMAND AREA BOUNDARIES

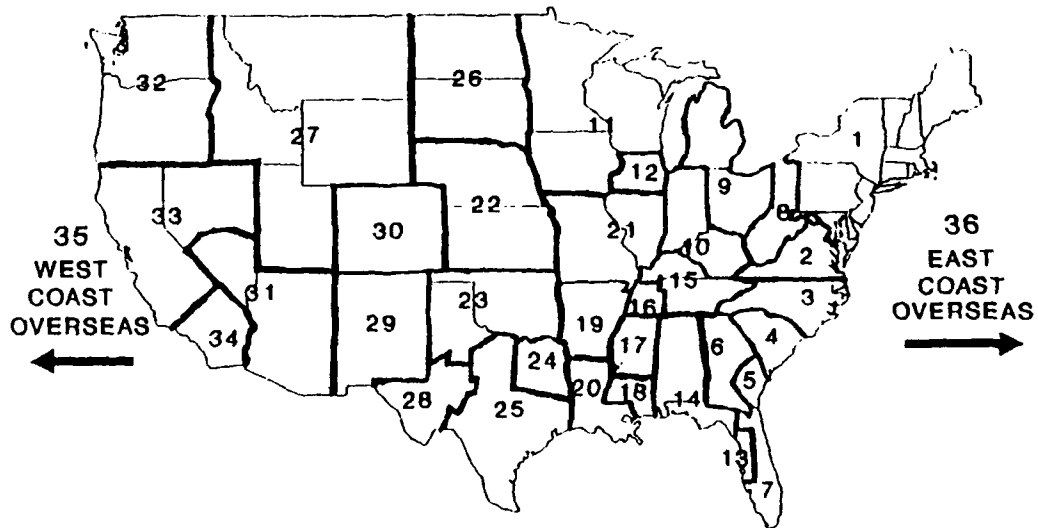
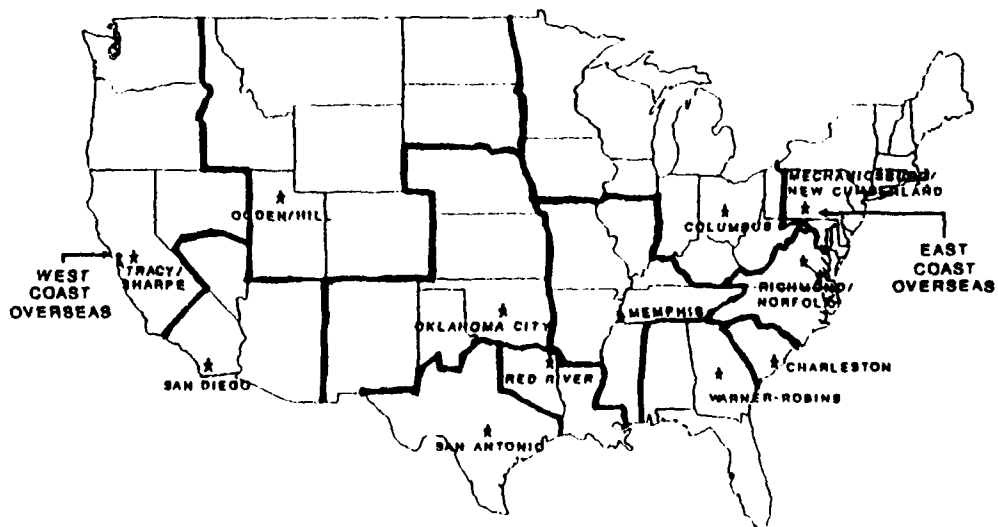


Figure 3
12 SITE (BASELINE) CONFIGURATION



The number of PDSs was reduced from the baseline by eliminating any sites whose assigned workload exceeded their wholesale issue throughput capacity by more than 25 percent. Once these sites were eliminated, multiple scenarios were defined for further reducing the number of PDSs. Sites were considered for elimination as a PDS by looking first at those with little or no unused capacity remaining, and also by trading off sites in close geographical proximity. For each new scenario, demand areas were assigned and site workloads determined as before. Feasible scenarios - those where no site exceeded capacity by over 25 percent - were then evaluated for first destination transportation, second destination transportation, and processing costs.

F. First Destination Transportation Costs

1. Vendor-To-Depot Shipment Composition.

Under a given configuration, each vendor's contract quantity for a given item was pro-rated to each site based on the percent of the total demand for that item which came from the demand areas served by that site. By way of example, under a 5 site architecture, assume that the total demand for a specific item is broken out as indicated in Table 1 and that Vendor-XYZ was to provide 1000 items (note that each item has a unit weight of 10 pounds) under a Government contract. Then the shipments of Vendor-XYZ would be structured as indicated. Note that at this point, the shipments from the vendor are only comprised of the DLA portion of the DoD workload as identified from the contract files maintained on the DIDB.

Table 1

EXAMPLE APPORTIONMENT OF VENDOR SHIPMENTS

SITE	PERCENT OF TOTAL DEMAND	VENDOR-XYZ SHIPPING QTY	SHIPPING WEIGHT (lbs)
1st Site:	35 percent	350	3500
2nd Site:	20 percent	200	2000
3rd Site:	10 percent	100	1000
4th Site:	15 percent	150	1500
5th Site:	20 percent	200	2000

Data on non-DLA receipts and purchases were not available in sufficient detail to use in this analysis, so DLA data was factored up to estimate the total DoD inbound transportation cost. This factor was based on outbound transportation data, for which total DoD information was available from the FINS Government Bill of Lading (GBL) file. The outbound shipments were segregated into nine groups based on weight, to allow for differences in size between DLA and non-DLA shipments. A factor was derived for each group by dividing the number of DoD shipments by the number of DLA shipments. These factors, and the data from which they were derived, are included in Appendix C. Next, the DLA inbound shipments were segregated into the same nine groups based on weight. The transportation costs of the DLA shipments in each group were calculated in the manner described in the next section. The total cost for each group was

then multiplied by the factor for that group to give the estimated DoD first destination transportation cost.

2. Inbound Transportation Rates. Rates used in calculating first destination transportation costs were derived as follows. Shipments were categorized as parcel post, less-than-truckload (LTL), or truckload (TL).

a. Parcel post shipments were computed for all shipments less than or equal to 70 pounds. The most recently available rates were used, those just prior to the March 1991 postal hike. These were based on an 8-Zone price structure by weight. The zone breaks were estimated at a 400 mile interval as measured from each vendor to each potential PDS site.

b. LTL shipments are those greater than 70 pounds and less than 10,000 pounds. To compute a transportation charge for LTL, MTMC rates were adjusted to approximate commercial rates; the adjustment factor was not applied to the MTMC minimum charge. The factor was comprised of two parts. First, the rate was multiplied by .50 to convert the MTMC rates to class 50 rates used for most DLA shipments. The second part of the factor was based on DORO study DLA-91-P81059, "Transportation Cost Comparison Study," February 1991, and is intended to scale MTMC rates to those a commercial carrier would charge a vendor.

$$\text{Rate} = (\text{MTMC rate}) * (0.50) * (1.126)$$

The next step was to calculate the weight range cost and the next higher weight range cost.

$$\begin{aligned}\text{Cost 1} &= (\text{Rate}) * (\text{GBL wgt}/100) \\ \text{Cost 2} &= (\text{Rate}) * (\text{Next Wgt. Class}/100)\end{aligned}$$

Last, the appropriate Estimated Shipping Charge (ESC) was selected.

$$\begin{aligned}\text{ESC} &= \text{MIN}(\text{Cost1}, \text{Cost2}) \\ \text{IF ESC} &< \text{Min Charge, ESC} = \text{Min Charge}\end{aligned}$$

c. TL shipments are those greater than 10,000 pounds. Their associated transportation rates were derived through a two step process equivalent to that used for LTL rates. The specific equation used was as follows.

$$\text{Rate} = (\text{MTMC rate}) * (0.35) * (1.043)$$

Next, weight range cost and the next higher weight range cost were calculated.

$$\begin{aligned}\text{Cost 1} &= (\text{Rate}) * (\text{GBL wgt}/100) \\ \text{Cost 2} &= (\text{Rate}) * (\text{Next Wgt. Class}/100)\end{aligned}$$

Last, the appropriate Estimated Shipping Charge (ESC) was selected.

$$\text{ESC} = \text{MIN}(\text{Cost1}, \text{Cost2})$$

G. Second Destination Transportation Costs.

Second destination transportation cost calculations were based on three important assumptions: first, that all demand in a given demand area would be satisfied from the PDS assigned to that area (an adjustment was later made to account for shipments from non-PDS sites); second, that the rates applicable from the assigned area site applied to all shipments in the demand area; and third, that shipments will be consolidated based on customer and ship date. Due to lack of data, shipments of small parcels and highly specialized commodities were not considered in this analysis.

In order to realistically cost shipments from a given site, a rate matrix was developed based on distance in miles and shipment weight. Historical data for shipments originating at DLA depots was appended with mileages and then run through a program to generate a matrix by mileage category (100 mile increments) and weight grouping (10 groupings based on cost per hundredweight). DLA shipment data was used so rates would reflect the Guaranteed Traffic Program.

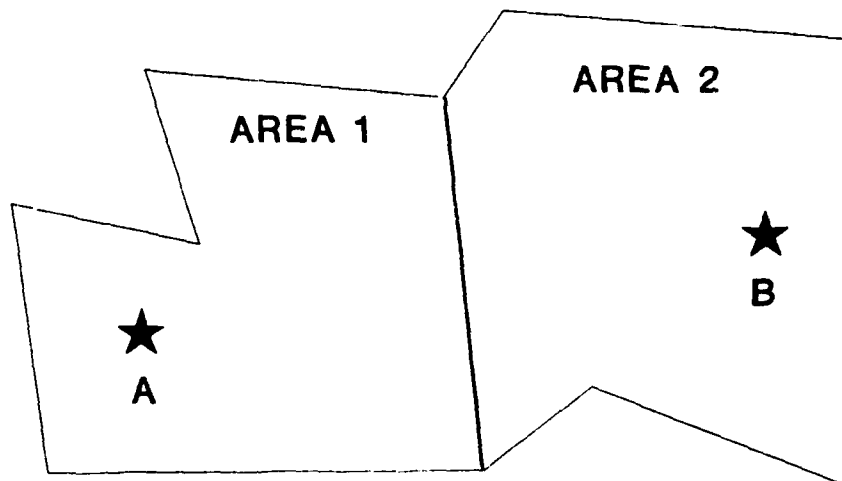
To build the consolidated outbound shipments, a shipment data base was constructed. It contained the customers and ship dates for one year's worth of GBL shipment history for all Services from the FINS file. To consolidate shipments within a given demand area, all shipments to a given customer on the same day were rolled together into a single shipment regardless of where the shipment originated. This approach was based on the assumption that all demand would be satisfied by the assigned area PDS.

Shipment costs were computed by scenario. In this manner transportation costs for second destination were estimated for all DoD freight shipments, except for those involving highly specialized commodities and small parcels. The rate matrix was then used to calculate transportation cost for each shipment, based on that shipment's weight and mileage.

The results of these calculations were then modified to reflect the portion of the demand served by non-PDS locations. Transportation costs at each candidate PDS were obtained by demand area. For areas originally served by a site that had been eliminated as a PDS, the transportation cost needed to be split between the PDS and non-PDS site. An example best shows how this was done; this example is illustrated in Figure 4. In the example's current scenario, site A serves as a PDS and site B does not. As a non-PDS location, B retains some workload; assume this retained workload is 40 percent of the workload that site B had as a PDS under the baseline scenario. Site A, as a PDS in the current scenario, serves two demand areas: area 1, which A had served in the baseline scenario, and area 2, which under the baseline was served by site B. When calculating second destination transportation costs, all of the costs from site A into area 1 are used. For area 2, however, 40 percent of the area's demand is assumed to be still served by site B, so 40 percent of the baseline scenario transportation costs from site B to area 2 are used. In addition, 60 percent of the transportation cost calculated for the current scenario from site A to area 2 are used, since this site would serve the other 60 percent of the area demand.

Figure 4

**EXAMPLE TRANSPORTATION
COST MODIFICATION**



BASELINE SCENARIO (SITES A & B BOTH PDSs)

A → 1	\$500,000	*	100%	▪	\$500,000
B → 2	\$1,000,000	*	100%	▪	<u>\$1,000,000</u>
					\$1,500,000

CURRENT SCENARIO (SITE A IS A PDS, B IS NOT)

A → 1	\$500,000	*	100%	▪	\$500,000
A → 2	\$1,200,000	*	60%	▪	\$720,000
B → 2	\$1,000,000	*	40%	▪	<u>\$400,000</u>
					\$1,620,000

H. Receipt and Issue Processing Costs.

The general approach to calculating processing costs was simply to multiply the workload at each site by the appropriate unit cost. Finding the appropriate unit cost, however, ran into some difficulties. For the Service depots, historical unit costs were not thought to reflect what the costs would be under DLA management, and no estimates of new unit costs were available. For DLA depots, unit costs were available; however, they reflected current operating procedures, workload levels, and workload mix, all of which may change under the PDS concept. Given this, we wished to ensure that differences in current depot unit costs did not drive the selection of PDS sites. This was done by using a "generic" DLA unit cost at all depots, calculated by dividing total DLA cost for each workload category by the total work units in that category. The results of these calculations are shown in Table 2.

Table 2

GENERIC DLA UNIT COSTS

BIN RECEIVING:	\$13.97
BULK RECEIVING:	\$38.35
BIN ISSUES:	\$ 6.14
BULK ISSUES:	\$22.02

Next, total costs were calculated by multiplying the workload at each site by the corresponding generic unit cost. Issue workload was determined as described in Section V.D.; a 65 percent/35 percent bin/bulk split was assumed based on current DLA issue workload. For receipts, a "fixed" workload was assumed based on 25 or 50 percent of current workload at DLA or Service depots, as done for issues. To estimate the remainder of the receipt workload, total DLA receipts at each site was obtained from the first destination transportation analysis. These totals were multiplied by a factor of 1.36, derived from comparing historical DLA total receipts to the historical DoD total minus the total "fixed" receipt workload. The receipt workload at each site was then multiplied by the generic unit cost, assuming a 70 percent/30 percent bin/bulk split based on current DLA receiving workload.

I. Iterations. The above steps were iterated as follows. From the baseline scenario (or first feasible scenario, if baseline not feasible), multiple scenarios were defined for configurations with one fewer PDS location. If more than one of these scenarios was feasible, the scenario with the lowest total cost was chosen. If this new scenario had a lower total cost than the previous configuration, this scenario was adopted, and the next iteration begun to further reduce the number of PDS locations. If the new scenario had a higher cost, the analysis would return to the previously adopted scenario, and other options considered for reducing the number of PDSs. The analysis would conclude when no lower cost, feasible scenario with fewer PDS locations could be found.

VI. ANALYSIS

A. Initial Analysis.

The diagram at Figure 5 shows the path that the analysis took from the 12 site baseline to the 6 site scenario. Tables of workload and capacity data for all the scenarios are included in Appendix D. The baseline scenario was not feasible; the sites at Warner-Robins, GA, and San Antonio, TX, were both more than 25 percent above capacity. When these two sites were dropped as PDSs, most of the workload from Warner-Robins was absorbed by Charleston, SC, putting that site more than 25 percent over capacity. Dropping Charleston as a PDS led to the first feasible scenario, with nine PDS locations; a map of this configuration is shown at Figure 6. The total cost for this scenario was estimated at \$525 million.

Under the nine site scenario, the Richmond/Norfolk site was very close to the capacity constraint, at 21.5 percent over capacity. For this reason, the analysis began in the northeast section of the CONUS, considering Mechanicsburg/New Cumberland, Richmond/ Norfolk, and Columbus for elimination as a PDS. Dropping Mechanicsburg/New Cumberland was infeasible, putting the other two sites over the 25 percent barrier. The two remaining scenarios were feasible, and their costs were calculated. This showed the scenario with Richmond/Norfolk dropped out to have slightly lower cost than dropping Columbus, and to be lower cost than the nine site scenario; it was therefore adopted. Since the cost difference was so small between the eight site scenarios, Columbus was dropped in the next step to see if costs were lower still; they were, so this seven site scenario was adopted. At this point, NSC San Diego was the only remaining site operating over capacity, so it was considered next for elimination as a PDS. The six site scenario obtained by dropping San Diego was found to be lower cost than the seven site, so it was adopted. This put us at the bottom of Figure 5; a map illustrating this six-depot configuration is shown in Figure 7. Figure 8 shows the path of the analysis from the six site scenario to the final result.

Since the east and west coasts had been considered, the analysis moved to the cluster of three sites in the central U.S.: Memphis, Red River, and Oklahoma City. Considering each of the three for elimination as a PDS, dropping Red River was the only feasible scenario; dropping either of the other two put Red River more than 25 percent over capacity. Since the cost of this scenario was lower than the six site scenario, Red River was dropped as a PDS. Next, the other two sites were again considered. Dropping Memphis was infeasible because it put Oklahoma City 37.3 percent over capacity. Dropping Oklahoma City as a PDS was feasible, and this four site scenario had a lower cost than the 5 site scenario, so Oklahoma City was eliminated as a PDS. A map of the four depot configuration is included at Figure 9. Figure 10 is a graph of workload versus capacity at each of the four sites.

Figure 5

SCENARIO FLOW

(Part 1)

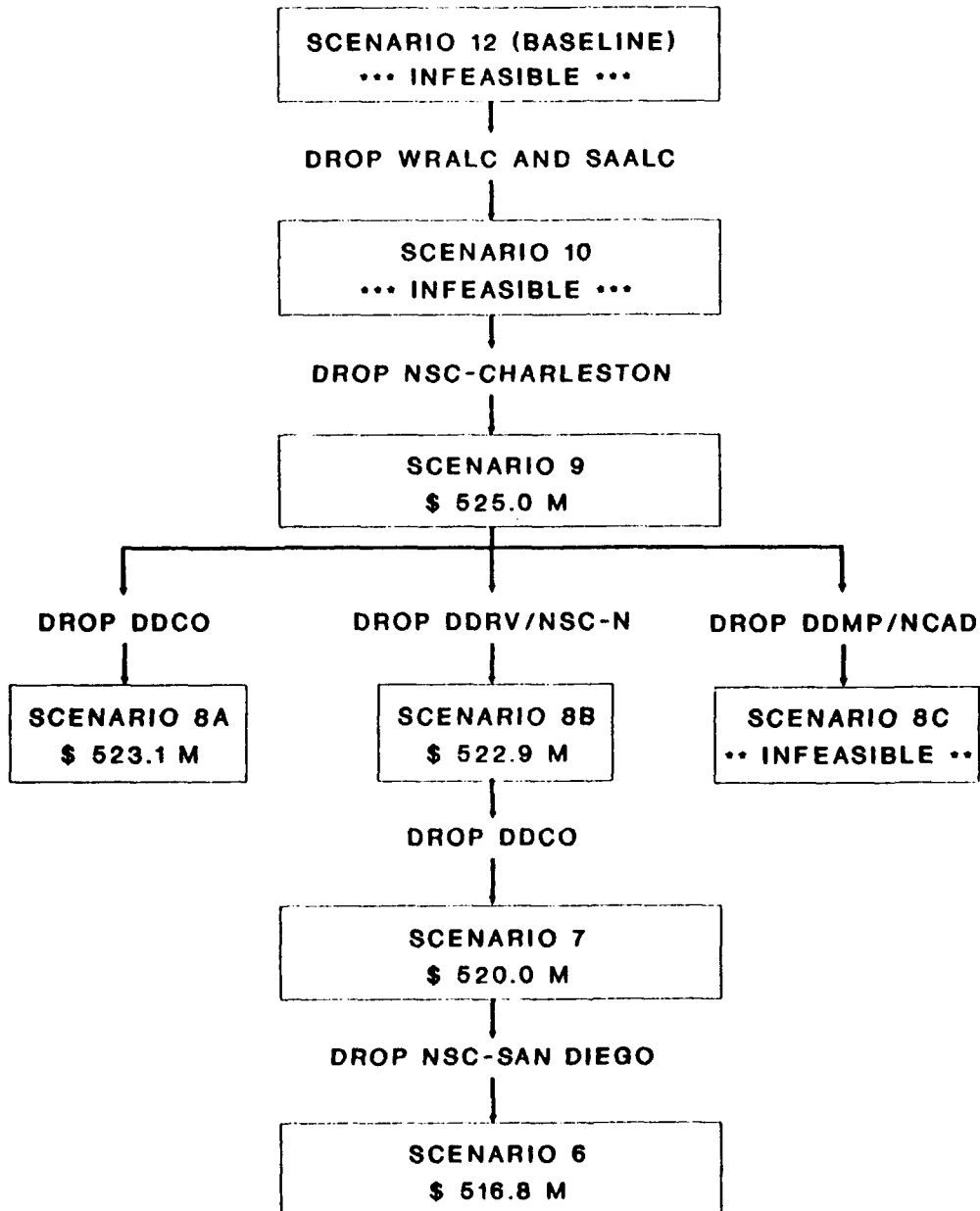


Figure 6
9 SITE CONFIGURATION

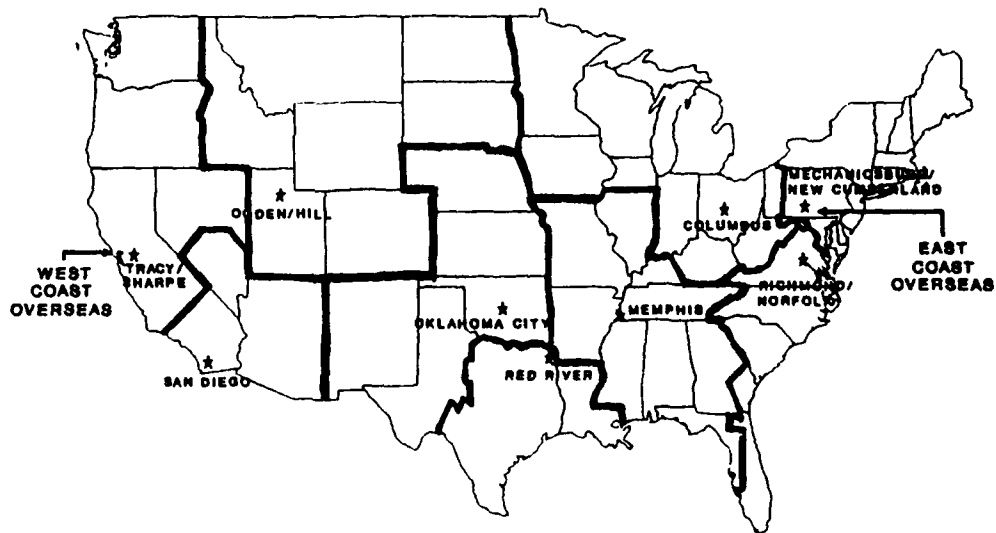


Figure 7
6 SITE CONFIGURATION

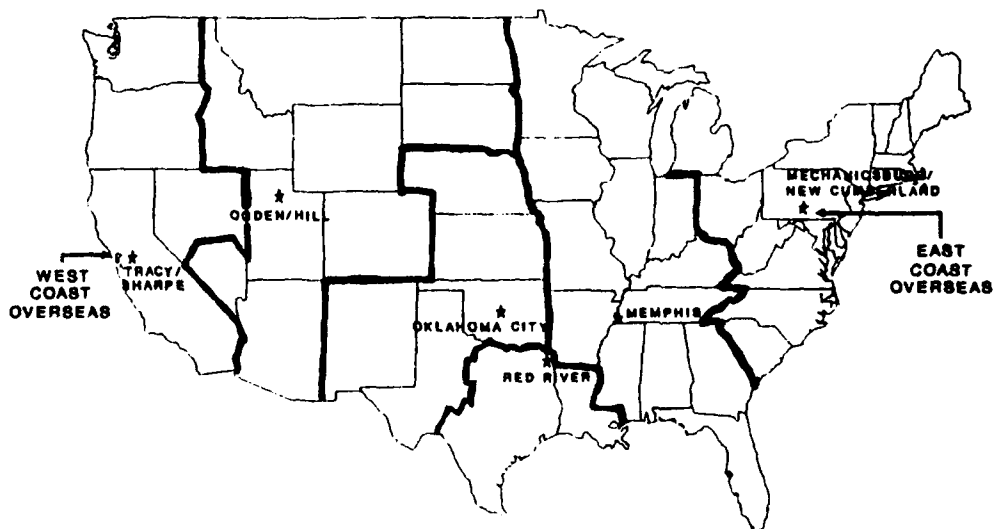


Figure 8

SCENARIO FLOW

(Part 2)

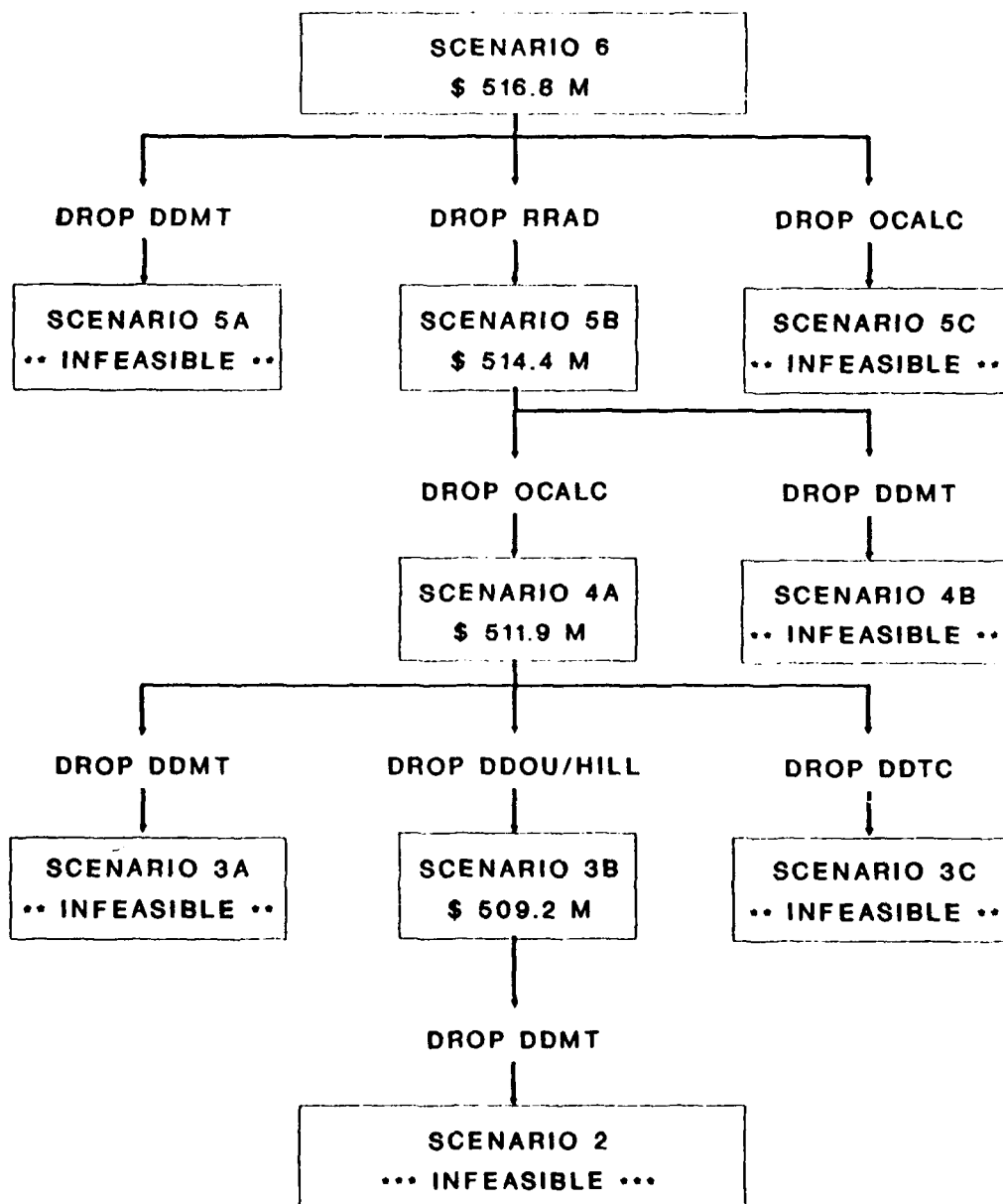


Figure 9
4 SITE CONFIGURATION

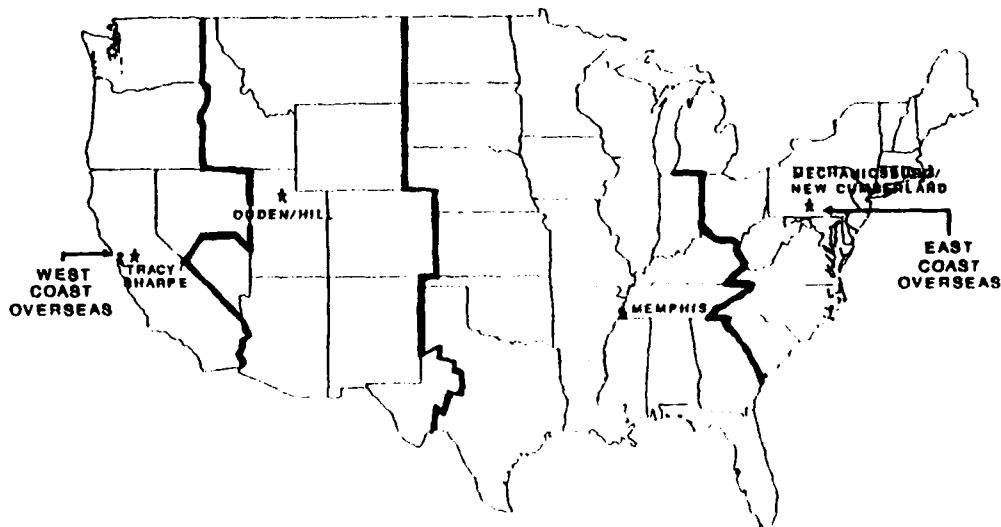
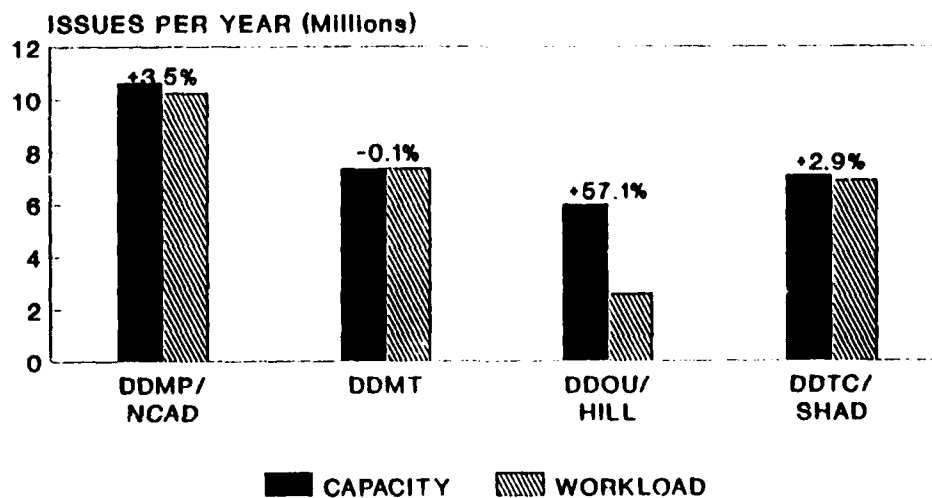


Figure 10
RESULTS OF 4 SITE SCENARIO
 % CAPACITY REMAINING



The next step in the analysis was to consider each of the four remaining sites for elimination as a PDS. The results, however, showed that dropping Ogden/Hill as a PDS yielded the only feasible three site scenario. The cost was lower than the four site scenario, so this three site configuration was adopted. No two site scenario was feasible; therefore, the three PDS configuration of Mechanicsburg/New Cumberland PA, Memphis, TN, and Tracy/Sharpe, CA, was found to be the low cost feasible solution. A map of this configuration is shown in Figure 11. Figure 12 is a graph of workload versus capacity for the three sites; it shows that both Memphis and Tracy/Sharpe exceed their issue throughput capacity by about 10 percent.

B. Sensitivity Analysis: Decreased Workload.

The analysis was extended to evaluate the effect of a decreased workload level on the results, in light of expected reductions in force size. For demand within the CONUS, a 10 percent reduction in requisitions was used; because of the anticipated European draw-down, east coast overseas requisitions were reduced 50 percent. The reductions were made across all items and, within the CONUS, across all demand areas. Workload and capacity data for all scenarios is included in Appendix E.

Figure 13 displays the path of the analysis using the reduced workload from the 12 site to the seven site scenario. The 12 site baseline was again infeasible, but now only Warner-Robins exceeded capacity by over 25 percent. When this site was dropped as a PDS, NSC Charleston became overloaded as before, and was therefore dropped in the next step. This brings us to the first feasible scenario, which in this analysis consisted of ten sites, since San Antonio had not dropped out. Total cost was \$447.3M (lower cost due to the lower workload).

Figure 11
3 SITE CONFIGURATION

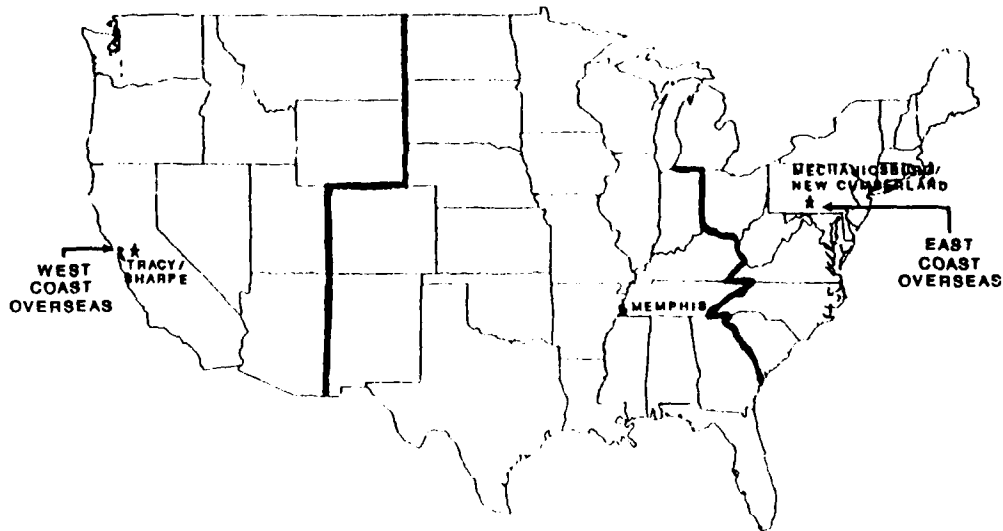
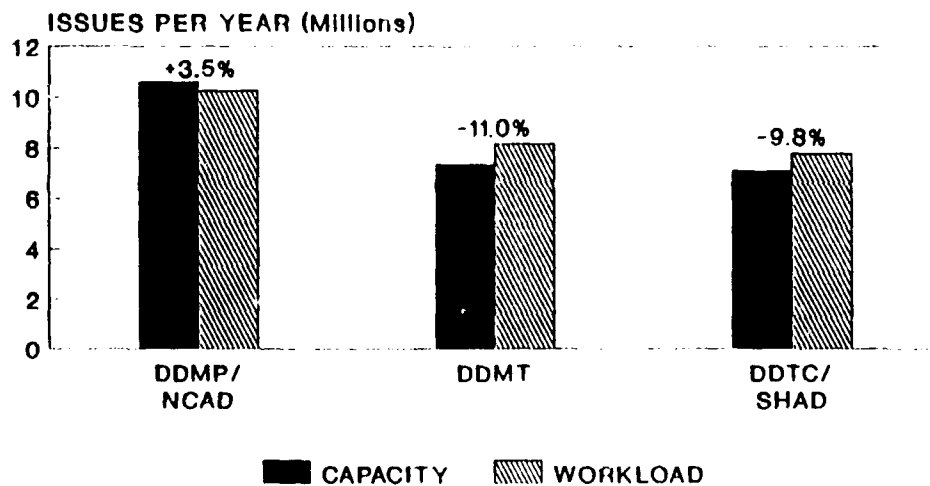


Figure 12
RESULTS OF 3 SITE SCENARIO
% CAPACITY REMAINING



In this ten site scenario, the San Antonio site was closest to being 25 percent above capacity; therefore, the depots in the central CONUS were considered first for elimination as a PDS. Scenarios were constructed for dropping each of the four central sites as a PDS. Dropping Oklahoma City was infeasible, because San Antonio was more than 25 percent above capacity. Of the other three, dropping Red River was the low cost option, and had lower cost than the ten site scenario; Red River was therefore dropped as a PDS. The other three sites were then considered again. Dropping Oklahoma City was still not feasible; of the other two, dropping San Antonio was lower cost than dropping Memphis or staying at nine depots, so San Antonio was dropped as a PDS. Finally for the central area, seven site scenarios without Oklahoma City and without Memphis were generated. Both were feasible; the scenario which eliminated Oklahoma City was adopted because it was the low configuration. This completed the analysis path shown in Figure 13.

Figure 14 shows the path of the remainder of the sensitivity analysis. In the seven site scenario, Richmond/Norfolk was the only remaining site where workload exceeded capacity. The analysis therefore moved next to the Northeast, and considered the three sites in that area for elimination as a PDS. As in the original analysis, dropping Mechanicsburg/New Cumberland was infeasible, and dropping Richmond/Norfolk gave lower cost than dropping Columbus, so Richmond/Norfolk was dropped as a PDS. Again like the original analysis, Columbus was considered next, and since eliminating it as a PDS lowered the cost, Columbus was dropped. San Diego was dropped as a PDS in the next scenario; since total cost was reduced, this four site scenario was adopted. The sensitivity analysis had at this point reached the same four site scenario that the original analysis had reached. A chart of workload versus capacity, shown at Figure 15, illustrates that significant capacity is still available in the remaining four PDS locations.

As before, each of the four sites was considered for elimination as a PDS. Dropping Mechanicsburg/New Cumberland or Tracy/Sharpe was still infeasible; however, due to the lower workload, dropping Memphis was feasible as well as dropping Ogden/Hill. Costing the scenarios showed eliminating Ogden/Hill as a PDS to be the low cost option, and the cost was also lower than the four site scenario; therefore, this three site scenario was adopted. Figure 16 shows the workload and capacities for this scenario.

Because of the lower workload, it was feasible in the sensitivity analysis to drop Memphis as a PDS and move to a two site configuration of Mechanicsburg/New Cumberland and Tracy/Sharpe. The scenario was lower cost than the three site scenario. Comparing workload to capacity, illustrated in Figure 17, showed that, although "feasible" by the definition used in the analysis, Mechanicsburg/New Cumberland was operating almost 20 percent above its issue throughput capacity. Therefore, this scenario was not considered acceptable as a final PDS configuration.

A natural question at this point is, given the 15 percent CONUS/50 percent OCONUS reduction was only notional, how large a workload drop is required to make a two site configuration reasonable? The line chart at Figure 18 relates percent of capacity remaining at Mechanicsburg/New Cumberland (so a negative value indicates workload above capacity) to a percent reduction in CONUS workload, given a fixed 50 percent reduction in east coast overseas demand. A dotted line indicates the case used in the sensitivity analysis, where a 15

Figure 13
SCENARIO FLOW
Reduced Workload (Part 1)

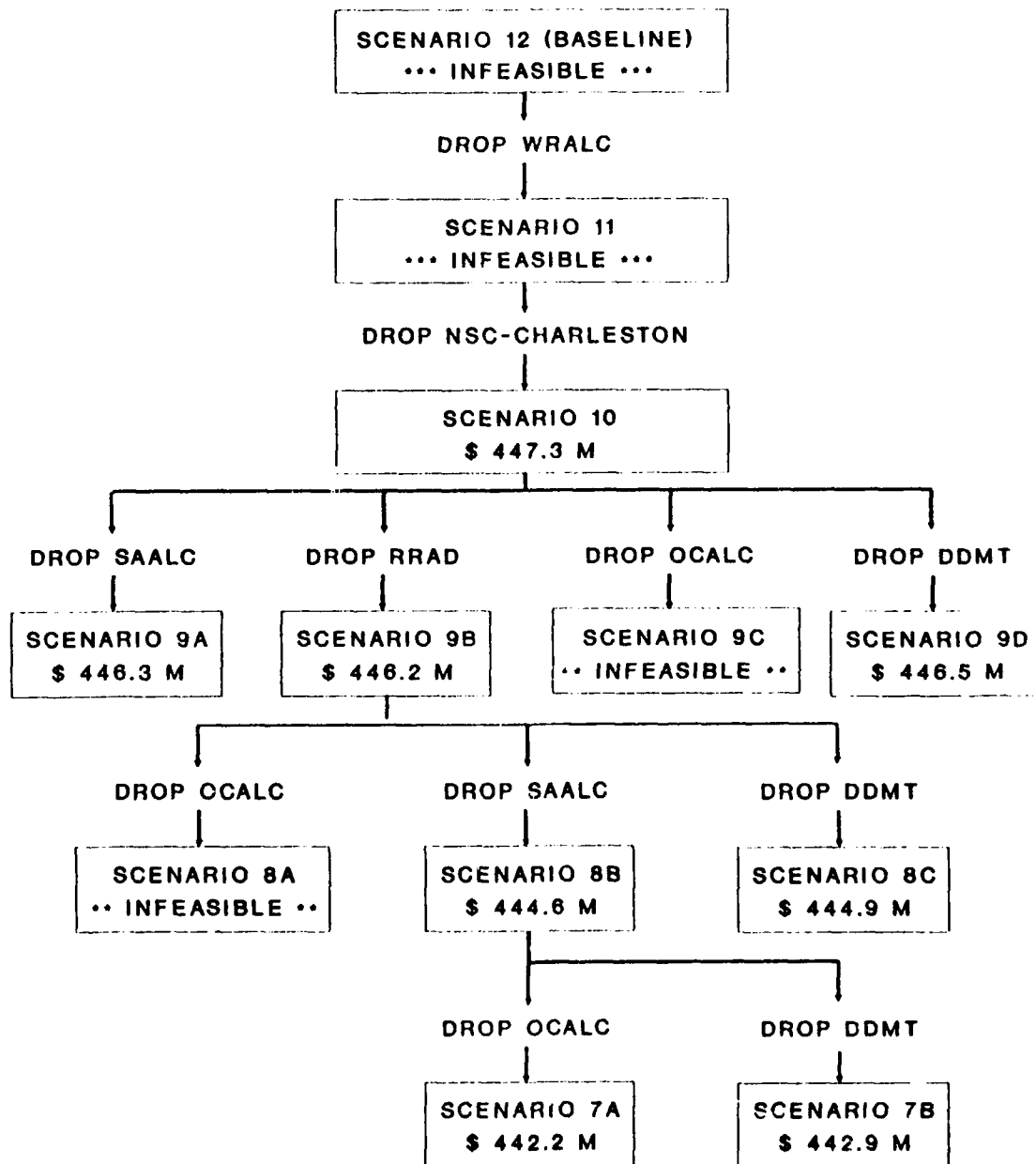


Figure 14
SCENARIO FLOW
Reduced Workload (Part 2)

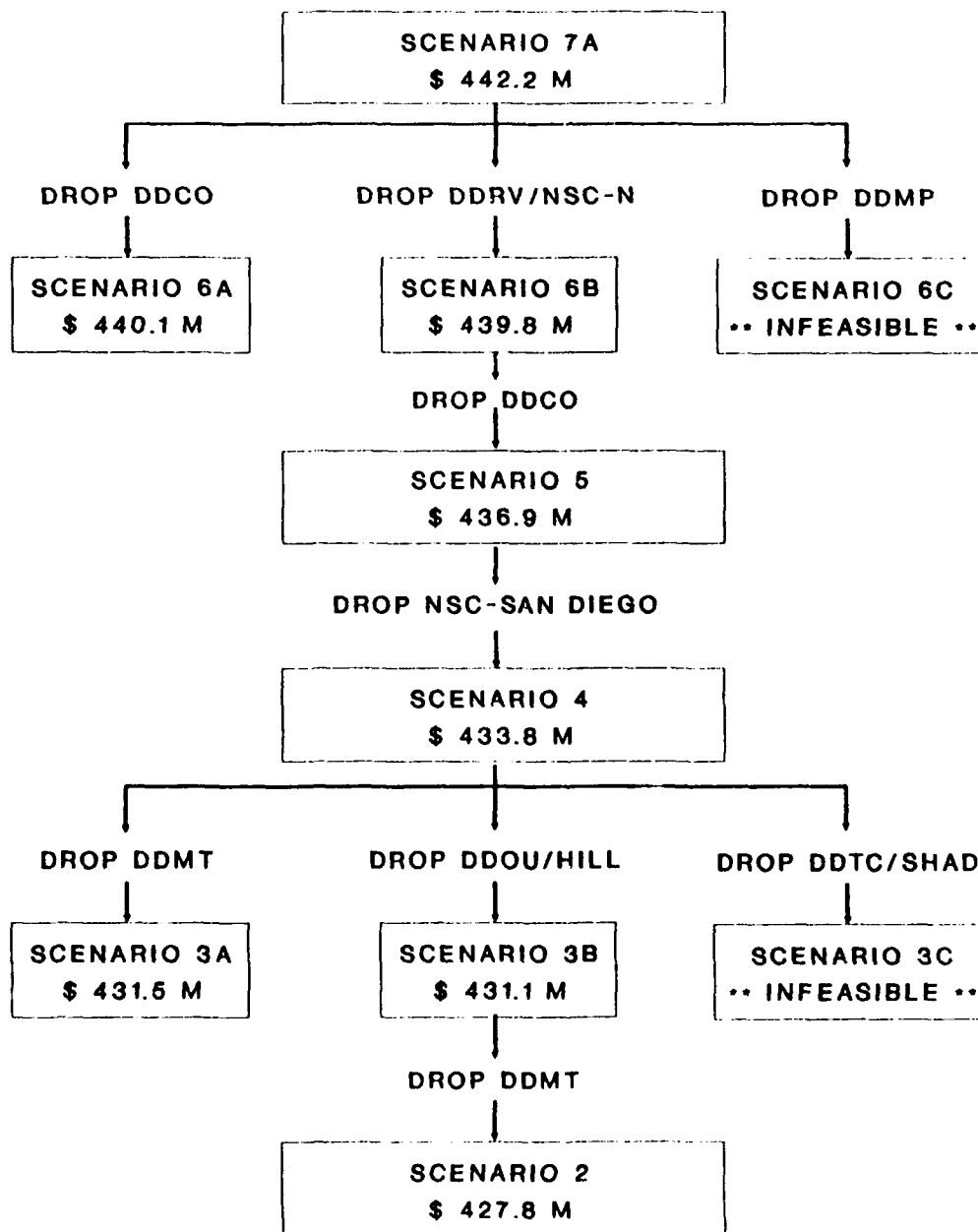


Figure 15
RESULTS OF 4 SITE SCENARIO
% CAPACITY REMAINING (LOW WKLD)

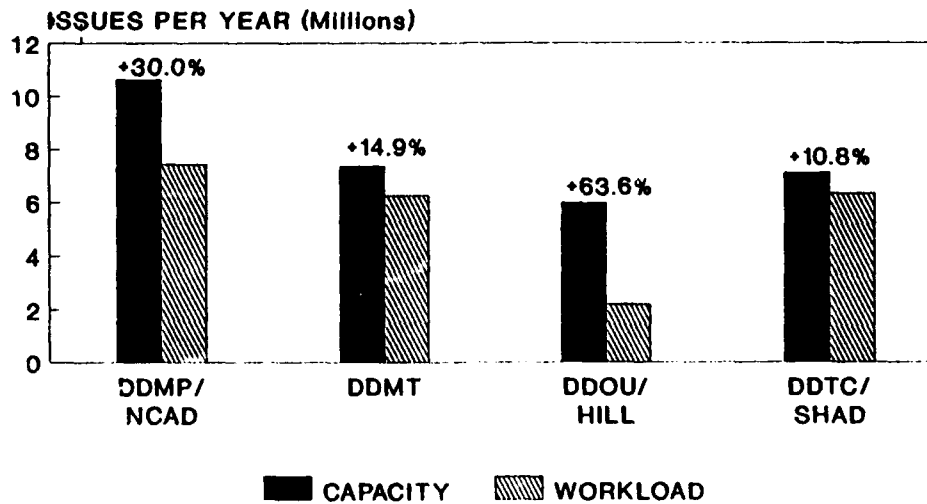


Figure 16
RESULTS OF 3 SITE SCENARIO
% CAPACITY REMAINING (LOW WKLD)

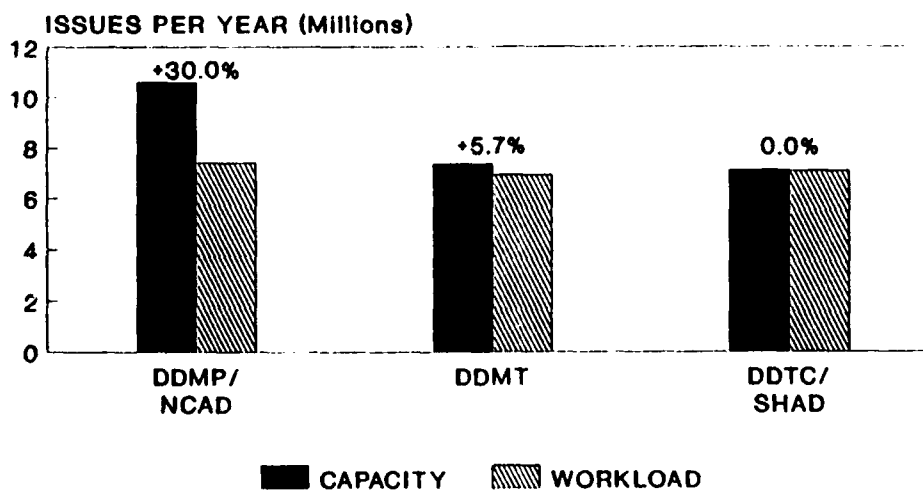


Figure 17

RESULTS OF 2 SITE SCENARIO

% CAPACITY REMAINING (LOW WKLD)

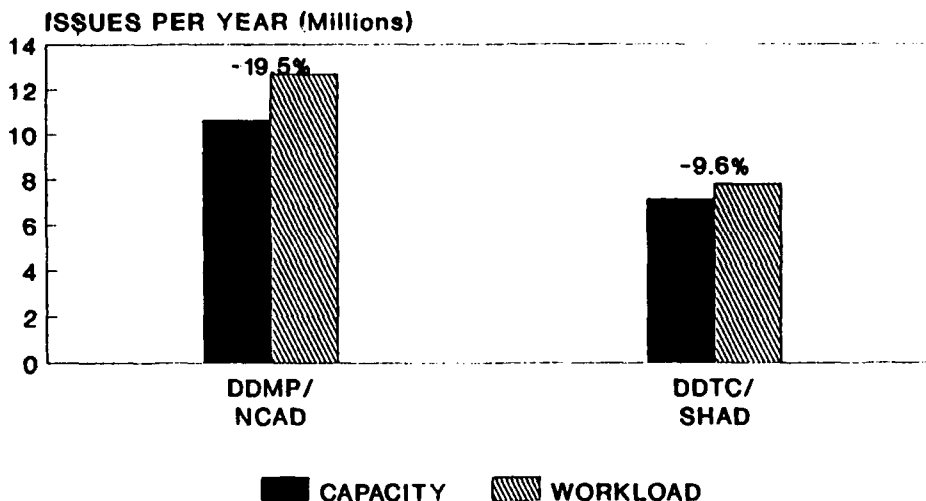
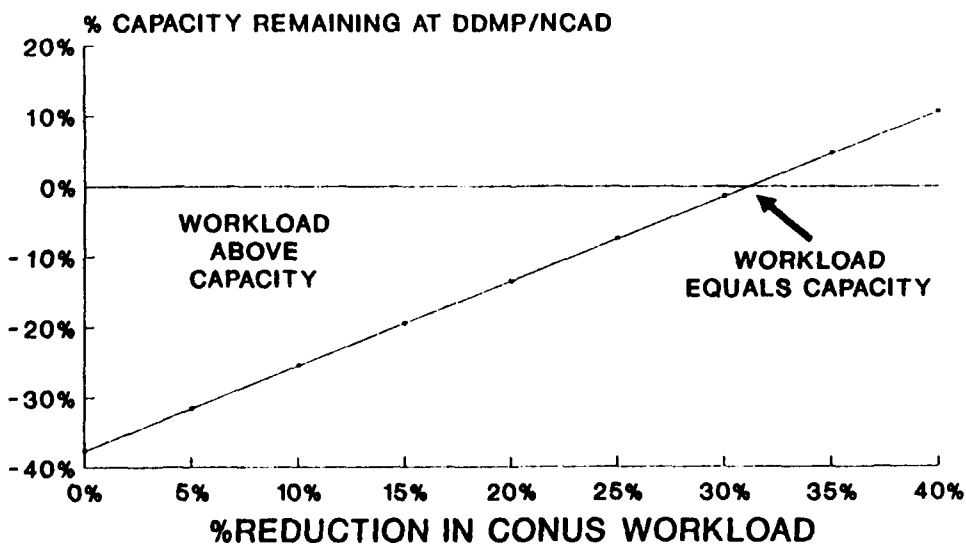


Figure 18

2 SITE SENSITIVITY ANALYSIS

WITH 50% REDUCTION IN EAST COAST OS WKLD



percent workload reduction puts Mechanicsburg/New Cumberland about 20 percent over capacity. To equate workload to capacity would require over a 30 percent reduction in CONUS workload along with the 50 percent drop in east coast overseas demand. Therefore, a drop in CONUS demand of at least 25 to 30 percent, along with a 50 percent drop in east coast overseas demand, would be required to make a two site configuration acceptable.

Given the small difference in costs between some alternative scenarios, one may also question whether a change in the sequence in which sites were eliminated would have changed the final result. In some cases, such as Columbus versus Richmond/Norfolk, both sites were dropped, so order would not matter. In other cases, specifically in the central CONUS area, changes in the sequence of elimination were evaluated; in no case was the final result affected.

APPENDIX A

Depot Capacities

DEPOT WHOLESALE ISSUE WORKLOAD CAPACITIES

<u>SITE LOCATION</u>	<u>CAPACITY*</u>
MECHANICSBURG/NEW CUMBERLAND	10,600,000
COLUMBUS	2,060,500
RICHMOND/NORFOLK	3,874,000
CHARLESTON	1,003,080
WARNER-ROBINS	679,900
MEMPHIS	7,358,000
RED RIVER	2,426,320
OKLAHOMA CITY	3,611,920
SAN ANTONIO	1,170,000
OGDEN/HILL	5,981,520
TRACY/SHARPE	7,100,000
SAN DIEGO	1,197,340

*Capacities are expressed in issues per year for one 8-hour shift per day, 260 work days per year.

APPENDIX B

Wholesale Issue Workload Data

Current Wholesale Issue Workload Data
Wholesale Issues Per Year

DEPOTS NOT IN BASELINE

<u>Name</u>	<u>Current Issue Workload</u>	<u>"Fixed" Workload</u>
CCAD	29,000	14,500
TEAD	37,000	18,500
MCLB-B	57,000	28,500
TOAD	90,000	45,000
SAAD	90,000	45,000
ANAD	92,000	46,000
LEAD	96,000	48,000
NSC-P	344,000	172,000
NSC-PS	359,000	179,500
SMALC	390,000	195,000
MCAS-CP	467,000	233,500
NSC-J	472,000	236,000
MCLB-A	598,000	299,000
NSC-O *	1,159,000	579,500
TOTAL	4,280,000	2,140,000

DEPOTS IN THE BASELINE

<u>Name</u>	<u>Current Issue Workload</u>	<u>"Fixed" Workload</u>
OCALC	688,000	344,000
WRALC	700,000	350,000
SAALC	828,000	414,000
NSC-C	918,000	459,000
RRAD	1,510,000	755,000
NSC-SD	1,543,000	771,500
DDCO	2,106,000	526,500
DDOU/HILL	3,024,000	865,500
DDTC/SHAD	3,730,000	1,114,000
DDMT	4,782,000	1,195,500
DDRV/NSC-N	5,211,000	1,915,250
DDMP/NCAD	5,215,000	1,881,500
TOTAL	30,255,000	10,589,750
GRAND TOTAL	34,535,000	12,729,750

* NSC-O not included in baseline due to selection for closure

APPENDIX C

DLA Inbound Shipment Adjustment Factors

DLA INBOUND SHIPMENT ADJUSTMENT FACTORS
 BASED ON OUTBOUND GBL FINS DATA FY89-4 THRU FY90-3

<u>SHIPMENT TYPE</u>	<u>WGT BREAKS</u>	<u>---- YEARLY SHIPMENTS ----</u>			<u>FACTOR</u>
		<u>SERVICE</u>	<u>DLA</u>	<u>TOTAL</u>	
Parcel Post,	MIN	67,999	224,247	292,246	1.3
Less than TL	200	38,225	72,211	110,436	1.5
Less than TL	500	22,451	42,285	64,736	1.5
Less than TL	1,000	17,239	29,869	47,108	1.6
Less than TL	2,000	15,202	23,938	39,140	1.6
Less than TL	5,000	6,654	9,907	16,561	1.7
Truck Load (TL)	10,000	6,025	5,607	11,632	2.1
Truck Load (TL)	20,000	5,739	3,546	9,285	2.6
Truck Load (TL)	30,000	3,047	2,877	5,924	2.1

APPENDIX D

Scenario Workload and Capacity Data

Initial Analysis

EXPLANATION OF ENTRIES IN APPENDIX D

SAMPLE ENTRY:

DEPOT	TOTAL	CAP REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	7,718,069 ¹	2,881,931 ³	1,881,500 ⁵	PDS ⁶
CAP:	10,600,000 ²	27.2% ⁴		

EXPLANATION:

1. Wholesale issue workload in this scenario, including fixed workload. DDMP/NCAD will process 7,718,069 requisitions per year in this scenario.

2. Capacity to process wholesale issues. The wholesale issue capacity of DDMP/NCAD is 10,600,000 requisitions per year.

3. Capacity remaining unused, equal to capacity (1) minus workload (2). If this entry is negative (signified by parenthesis), this is the amount that workload exceeds capacity. DDMP/NCAD can process 2,881,931 more requisitions without exceeding its capacity.

4. Percent capacity remaining, equal to capacity remaining divided by capacity, multiplied by 100%. If negative, this signifies the percent that this site is over capacity. So, in this example DDMP/NCAD has 27.2 percent of its capacity unused.

5. "Fixed" workload is the workload that this site will process regardless of whether it is a PDS. So, if DDMP/NCAD was to be dropped as a PDS, it would process 1,881,500 requisitions per year.

6. PDS flag, which signifies whether a site is functioning as a PDS in this scenario. Non-PDS locations have a blank entry. An entry of three asterisks (***) indicates a site that was dropped as a PDS when this scenario was defined. DDMP/NCAD, then, is a PDS in this example.

SCENARIO 12 (BASELINE)

12 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	PDS
1 DDMP/NCAD	7,718,069	2,881,931	1,881,500		PDS
CAP:	10,600,000	27.2%			
DEPOT					
2 DDCO	1,873,399	187,101	526,500		PDS
CAP:	2,060,500	9.1%			
DEPOT					
3 DDRV/NSCN	3,460,388	413,612	1,915,250		PDS
CAP:	3,874,000	10.7%			
DEPOT					
4 NSC-C	911,073	92,007	459,000		PDS
CAP:	1,003,080	9.2%			
DEPOT					
5 WRALC	2,420,105	(1,740,205)	350,000		PDS
CAP:	679,900	-256.0%			
DEPOT					
6 FDMT	2,129,406	5,228,594	1,195,500		PDS
CAP:	7,358,000	71.1%			
DEPOT					
7 RRAD	1,243,438	1,182,882	755,000		PDS
CAP:	2,426,320	48.8%			
DEPOT					
8 OCALC	1,381,502	2,230,418	344,000		PDS
CAP:	3,611,920	61.8%			
DEPOT					
9 SAALC	1,562,271	(392,271)	414,000		PDS
CAP:	1,170,000	-33.5%			
DEPOT					
10 DDOU/HILL	1,862,938	4,118,582	865,500		PDS
CAP:	5,981,520	68.9%			
DEPOT					
11 DDTG/SHAD	5,755,442	1,344,558	1,114,000		PDS
CAP:	7,100,000	18.9%			
DEPOT					
12 NSC-SD	2,273,719	(295,379)	771,500		PDS
CAP:	1,978,340	-14.9%			

SCENARIO 10 (WRALC and SAALC DROPPED)

10 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	7,718,069	2,881,931	1,881,500	PDS	
CAP:	10,600,000	27.2%			
DEPOT					
2 DDCO	1,873,399	187,101	526,500	PDS	
CAP:	2,060,500	9.1%			
DEPOT					
3 DDRV/NSCN	3,460,388	413,612	1,915,250	PDS	
CAP:	3,874,000	10.7%			
DEPOT					
4 NSC-C	2,302,290	(1,299,210)	459,000	PDS	
CAP:	1,003,080	-129.5%			
DEPOT					
5 WRALC	350,000	329,900	350,000	***	
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	2,808,294	4,549,706	1,195,500	PDS	
CAP:	7,358,000	61.8%			
DEPOT					
7 RRAD	2,239,123	187,197	755,000	PDS	
CAP:	2,426,320	7.7%			
DEPOT					
8 OCALC	1,534,087	2,077,833	344,000	PDS	
CAP:	3,611,920	57.5%			
DEPOT					
9 SAALC	414,000	756,000	414,000	***	
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	1,862,938	4,118,582	865,500	PDS	
CAP:	5,981,520	68.9%			
DEPOT					
11 DDTC/SHAD	5,755,442	1,344,558	1,114,000	PDS	
CAP:	7,100,000	18.9%			
DEPOT					
12 NSC-SD	2,273,719	(295,379)	771,500	PDS	
CAP:	1,978,340	-14.9%			

SCENARIO 9 (DROPPED NSC-C)

9 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND, DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	7,718,069	2,881,931	1,881,500	PDS	
CAP:	10,600,000	27.2%			
DEPOT					
2 DDCO	1,873,399	187,101	526,500	PDS	
CAP:	2,060,500	9.1%			
DEPOT					
3 DDRV/NSCN	4,707,548	(833,548)	1,915,250	PDS	
CAP:	3,874,000	-21.5%			
DEPOT					
4 NSC-C	459,000	544,080	459,000	***	
CAP:	1,003,080	54.2%			
DEPOT					
5 WRALC	350,000	329,900	350,000		
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	3,404,423	3,953,577	1,195,500	PDS	
CAP:	7,358,000	53.7%			
DEPOT					
7 RRAD	2,239,123	187,197	755,000	PDS	
CAP:	2,426,320	7.7%			
DEPOT					
8 OCALC	1,534,087	2,077,833	344,000	PDS	
CAP:	3,611,920	57.5%			
DEPOT					
9 SAALC	414,000	756,000	414,000		
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	1,862,938	4,118,582	865,500	PDS	
CAP:	5,981,520	68.9%			
DEPOT					
11 DDTTC/SHAD	5,755,442	1,344,558	1,114,000	PDS	
CAP:	7,100,000	18.9%			
DEPOT					
12 NSC-SD	2,273,719	(295,379)	771,500	PDS	
CAP:	1,978,340	-14.9%			

SCENARIO 8A (DROPPED DDCO)

8 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	8,233,532	2,366,468	1,881,500	PDS
CAP:	10,600,000	22.3%		
DEPOT				
2 DDCO	526,500	1,534,000	526,500	***
CAP:	2,060,500	74.4%		
DEPOT				
3 DDRV/NSCN	4,707,548	(833,548)	1,915,250	PDS
CAP:	3,874,000	-21.5%		
DEPOT				
4 NSC-C	459,000	544,080	459,000	
CAP:	1,003,080	54.2%		
DEPOT				
5 WRALC	350,000	329,900	350,000	
CAP:	679,900	48.5%		
DEPOT				
6 DDMT	4,235,860	3,122,140	1,195,500	PDS
CAP:	7,358,000	42.4%		
DEPOT				
7 RRAD	2,239,123	187,197	755,000	PDS
CAP:	2,426,320	7.7%		
DEPOT				
8 OCALC	1,534,087	2,077,833	344,000	PDS
CAP:	3,611,920	57.5%		
DEPOT				
9 SAALC	414,000	756,000	414,000	
CAP:	1,170,000	64.6%		
DEPOT				
10 DDOU/HILL	1,862,938	4,118,582	865,500	PDS
CAP:	5,981,520	68.9%		
DEPOT				
11 DDTG/SHAD	5,755,442	1,344,558	1,114,000	PDS
CAP:	7,100,000	18.9%		
DEPOT				
12 NSC-SD	2,273,719	(295,379)	771,500	PDS
CAP:	1,978,340	-14.9%		

SCENARIO 8B (DROPPED DDRV/NSC-N)

8 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND, DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	9,263,207	1,336,793	1,881,500	PDS	
CAP:	10,600,000	12.6%			
DEPOT					
2 DDCO	2,325,472	(264,972)	526,500	PDS	
CAP:	2,060,500	-12.9%			
DEPOT					
3 DDRV/NSCN	1,915,250	1,958,750	1,915,250	***	
CAP:	3,874,000	50.6%			
DEPOT					
4 NSC-C	459,000	544,080	459,000		
CAP:	1,003,080	54.2%			
DEPOT					
5 WRALC	350,000	329,900	350,000		
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	4,199,511	3,158,489	1,195,500	PDS	
CAP:	7,358,000	42.9%			
DEPOT					
7 RRAD	2,239,123	187,197	755,000	PDS	
CAP:	2,426,320	7.7%			
DEPOT					
8 OCALC	1,534,087	2,077,833	344,000	PDS	
CAP:	3,611,920	57.5%			
DEPOT					
9 SAALC	414,000	756,000	414,000		
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	1,862,938	4,118,582	865,500	PDS	
CAP:	5,981,520	68.9%			
DEPOT					
11 DDTC/SHAD	5,755,442	1,344,558	1,114,000	PDS	
CAP:	7,100,000	18.9%			
DEPOT					
12 NSC-SD	2,273,719	(295,379)	771,500	PDS	
CAP:	1,978,340	-14.9%			

SCENARIO 8C (DROPPED DDMP/NCAD)

8 DEPOT SCENARIO, DISTRIBUTING 21.5M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	1,881,500	8,718,500	1,881,500	***	
CAP:	10,600,000	82.3%			
DEPOT					
2 DDCO	3,995,885	(1,935,385)	526,500	PDS	
CAP:	2,060,500	-93.9%			
DEPOT					
3 DDRV/NSCN	8,194,910	(4,320,910)	1,915,250	PDS	
CAP:	3,874,000	-111.5%			
DEPOT					
4 NSC-C	459,000	544,080	459,000		
CAP:	1,003,080	54.2%			
DEPOT					
5 WRALC	350,000	329,900	350,000		
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	3,354,221	4,003,779	1,195,500	PDS	
CAP:	7,358,000	54.4%			
DEPOT					
7 RRAD	2,205,393	220,927	755,000	PDS	
CAP:	2,426,320	9.1%			
DEPOT					
8 OCALC	1,507,040	2,104,880	344,000	PDS	
CAP:	3,611,920	58.3%			
DEPOT					
9 SAALC	414,000	756,000	414,000		
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	1,840,269	4,141,251	865,500	PDS	
CAP:	5,981,520	69.2%			
DEPOT					
11 DDTC/SHAD	5,649,955	1,450,045	1,114,000	PDS	
CAP:	7,100,000	20.4%			
DEPOT					
12 NSC-SD	2,239,578	(261,238)	771,500	PDS	
CAP:	1,978,340	-13.2%			

SCENARIO 7 (DROPPED DDCO)

7 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	10,230,743	369,257	1,881,500	PDS	
CAP:	10,600,000	3.5%			
DEPOT					
2 DDCO	526,500	1,534,000	526,500	***	
CAP:	2,060,500	74.4%			
DEPOT					
3 DDRV/NSCN	1,915,250	1,958,750	1,915,250		
CAP:	3,874,000	50.6%			
DEPOT					
4 NSC-C	459,000	544,080	459,000		
CAP:	1,003,080	54.2%			
DEPOT					
5 WRALC	350,000	329,900	350,000		
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	5,030,947	2,327,053	1,195,500	PDS	
CAP:	7,358,000	31.6%			
DEPOT					
7 RRAD	2,239,123	187,197	755,000	PDS	
CAP:	2,426,320	7.7%			
DEPOT					
8 OCALC	1,534,087	2,077,833	344,000	PDS	
CAP:	3,611,920	57.5%			
DEPOT					
9 SAALC	414,000	756,000	414,000		
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	1,862,938	4,118,582	865,500	PDS	
CAP:	5,981,520	68.9%			
DEPOT					
11 DDTC/SHAD	5,755,442	1,344,558	1,114,000	PDS	
CAP:	7,100,000	18.9%			
DEPOT					
12 NSC-SD	2,273,719	(295,379)	771,500	PDS	
CAP:	1,978,340	-14.9%			

SCENARIO 6 (DROPPED NSC-SD)

6 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD

IN ADDITION:

SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	10,230,743	369,257	1,881,500	PDS	
CAP:	10,600,000	3.5%			
DEPOT					
2 DDCO	526,500	1,534,000	526,500		
CAP:	2,060,500	74.4%			
DEPOT					
3 DDRV/NSCN	1,915,250	1,958,750	1,915,250		
CAP:	3,874,000	50.6%			
DEPOT					
4 NSC-C	459,000	544,080	459,000		
CAP:	1,003,080	54.2%			
DEPOT					
5 WRALC	350,000	329,900	350,000		
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	5,030,947	2,327,053	1,195,500	PDS	
CAP:	7,358,000	31.6%			
DEPOT					
7 RRAD	2,239,123	187,197	755,000	PDS	
CAP:	2,426,320	7.7%			
DEPOT					
8 OCALC	1,534,087	2,077,833	344,000	PDS	
CAP:	3,611,920	57.5%			
DEPOT					
9 SAALC	414,000	756,000	414,000		
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	2,224,842	3,756,678	865,500	PDS	
CAP:	5,981,520	62.8%			
DEPOT					
11 DDTTC/SHAD	6,895,758	204,242	1,114,000	PDS	
CAP:	7,100,000	2.9%			
DEPOT					
12 NSC-SD	771,500	1,206,840	771,500	***	
CAP:	1,978,340	61.0%			

SCENARIO 5A (DROPPED DDMT)

5 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD

IN ADDITION:

SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND, DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	11,529,036	(929,036)	1,881,500	PDS	
CAP:	10,600,000	-8.8%			
DEPOT					
2 DDCO	526,500	1,534,000	526,500		
CAP:	2,060,500	74.4%			
DEPOT					
3 DDRV/NSCN	1,915,250	1,958,750	1,915,250		
CAP:	3,874,000	50.6%			
DEPOT					
4 NSC-C	459,000	544,080	459,000		
CAP:	1,003,080	54.2%			
DEPOT					
5 WRALC	350,000	329,900	350,000		
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	1,195,500	6,162,500	1,195,500	***	
CAP:	7,358,000	83.8%			
DEPOT					
7 RRAD	4,193,887	(1,767,567)	755,000	PDS	
CAP:	2,426,320	-72.8%			
DEPOT					
8 OALC	2,116,477	1,495,443	344,000	PDS	
CAP:	3,611,920	41.4%			
DEPOT					
9 SAALC	414,000	756,000	414,000		
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	2,224,842	3,756,678	865,500	PDS	
CAP:	5,981,520	62.8%			
DEPOT					
11 DDTG/SHAD	6,895,758	204,242	1,114,000	PDS	
CAP:	7,100,000	2.9%			
DEPOT					
12 NSC-SD	771,500	1,206,840	771,500		
CAP:	1,978,340	61.0%			

SCENARIO 5B (DROPPED RRAD)

5 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND, DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	10,230,743	369,257	1,881,500	PDS	
CAP:	10,600,000	3.5%			
DEPOT					
2 DDCO	526,500	1,534,000	526,500		
CAP:	2,060,500	74.4%			
DEPOT					
3 DDRV/NSCN	1,915,250	1,958,750	1,915,250		
CAP:	3,874,000	50.6%			
DEPOT					
4 NSC-C	459,000	544,080	459,000		
CAP:	1,003,080	54.2%			
DEPOT					
5 WRALC	350,000	329,900	350,000		
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	5,340,847	2,017,153	1,195,500	PDS	
CAP:	7,358,000	27.4%			
DEPOT					
7 RRAD	755,000	1,671,320	755,000	***	
CAP:	2,426,320	68.9%			
DEPOT					
8 OCALC	2,708,310	903,610	344,000	PDS	
CAP:	3,611,920	25.0%			
DEPOT					
9 SAALC	414,000	756,000	414,000		
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	2,224,842	3,756,678	865,500	PDS	
CAP:	5,981,520	62.8%			
DEPOT					
11 DDTG/SHAD	6,895,758	204,242	1,114,000	PDS	
CAP:	7,100,000	2.9%			
DEPOT					
12 NSC-SD	771,500	1,206,840	771,500		
CAP:	1,978,340	61.0%			

SCENARIO 5C (DROPPED OCALC)

5 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND, DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	10,230,743	369,257	1,881,500	PDS	
CAP:	10,600,000	3.5%			
DEPOT					
2 DDCO	526,500	1,534,000	526,500		
CAP:	2,060,500	74.4%			
DEPOT					
3 DDRV/NSCN	1,915,250	1,958,750	1,915,250		
CAP:	3,874,000	50.6%			
DEPOT					
4 NSC-C	459,000	544,080	459,000		
CAP:	1,003,080	54.2%			
DEPOT					
5 WRALC	350,000	329,900	350,000		
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	5,030,947	2,327,053	1,195,500	PDS	
CAP:	7,358,000	31.6%			
DEPOT					
7 RRAD	3,429,210	(1,002,890)	755,000	PDS	
CAP:	2,426,320	-41.3%			
DEPOT					
8 OCALC	344,000	3,267,920	344,000	***	
CAP:	3,611,920	90.5%			
DEPOT					
9 SAALC	414,000	756,000	414,000		
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	2,224,842	3,756,678	865,500	PDS	
CAP:	5,981,520	62.8%			
DEPOT					
11 DDTC/SHAD	6,895,758	204,242	1,114,000	PDS	
CAP:	7,100,000	2.9%			
DEPOT					
12 NSC-SD	771,500	1,206,840	771,500		
CAP:	1,978,340	61.0%			

SCENARIO 4A (DROPPED OCALC)

4 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	10,230,743	369,257	1,881,500	PDS
CAP:	10,600,000	3.5%		
DEPOT				
2 DDCO	526,500	1,534,000	526,500	
CAP:	2,060,500	74.4%		
DEPOT				
3 DDRV/NSCN	1,915,250	1,958,750	1,915,250	
CAP:	3,874,000	50.6%		
DEPOT				
4 NSC-C	459,000	544,080	459,000	
CAP:	1,003,080	54.2%		
DEPOT				
5 WRALC	350,000	329,900	350,000	
CAP:	679,900	48.5%		
DEPOT				
6 DDMT	7,365,957	(7,957)	1,195,500	PDS
CAP:	7,358,000	-0.1%		
DEPOT				
7 RRAD	755,000	1,671,320	755,000	
CAP:	2,426,320	68.9%		
DEPOT				
8 OCALC	344,000	3,267,920	344,000	***
CAP:	3,611,920	90.5%		
DEPOT				
9 SAALC	414,000	756,000	414,000	
CAP:	1,170,000	64.6%		
DEPOT				
10 DDOU/HILL	2,564,043	3,417,477	865,500	PDS
CAP:	5,981,520	57.1%		
DEPOT				
11 DDTG/SHAD	6,895,758	204,242	1,114,000	PDS
CAP:	7,100,000	2.9%		
DEPOT				
12 NSC-SD	771,500	1,206,840	771,500	
CAP:	1,978,340	61.0%		

SCENARIO 4B (DROPPED DDMT)

4 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	12,125,165	(1,525,165)	1,881,500	PDS	
CAP:	10,600,000	-14.4%			
DEPOT					
2 DDCO	526,500	1,534,000	526,500		
CAP:	2,060,500	74.4%			
DEPOT					
3 DDRV/NSCN	1,915,250	1,958,750	1,915,250		
CAP:	3,874,000	50.6%			
DEPOT					
4 NSC-C	459,000	544,080	459,000		
CAP:	1,003,080	54.2%			
DEPOT					
5 WRALC	350,000	329,900	350,000		
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	1,195,500	6,162,500	1,195,500	***	
CAP:	7,358,000	83.8%			
DEPOT					
7 RRAD	755,000	1,671,320	755,000		
CAP:	2,426,320	68.9%			
DEPOT					
8 OCALC	4,959,235	(1,347,315)	344,000	PDS	
CAP:	3,611,920	-37.3%			
DEPOT					
9 SAALC	414,000	756,000	414,000		
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	2,224,842	3,756,678	865,500	PDS	
CAP:	5,981,520	62.8%			
DEPOT					
11 DDTC/SHAD	6,895,758	204,242	1,114,000	PDS	
CAP:	7,100,000	2.9%			
DEPOT					
12 NSC-SD	771,500	1,206,840	771,500		
CAP:	1,978,340	61.0%			

SCENARIO 3A (DROPPED DDMT)

3 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	14,554,628	(3,954,628)	1,881,500	PDS	
CAP:	10,600,000	-37.3%			
DEPOT					
2 DDCCO	526,500	1,534,000	526,500		
CAP:	2,060,500	74.4%			
DEPOT					
3 DDRV/NSCN	1,915,250	1,958,750	1,915,250		
CAP:	3,874,000	50.6%			
DEPOT					
4 NSC-C	459,000	544,080	459,000		
CAP:	1,003,080	54.2%			
DEPOT					
5 WRALC	350,000	329,900	350,000		
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	1,195,500	6,162,500	1,195,500	***	
CAP:	7,358,000	83.8%			
DEPOT					
7 RRAD	755,000	1,671,320	755,000		
CAP:	2,426,320	68.9%			
DEPOT					
8 OCALC	344,000	3,267,920	344,000		
CAP:	3,611,920	90.5%			
DEPOT					
9 SAALC	414,000	756,000	414,000		
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	4,410,614	1,570,906	865,500	PDS	
CAP:	5,981,520	26.3%			
DEPOT					
11 DDTTC/SHAD	6,895,758	204,242	1,114,000	PDS	
CAP:	7,100,000	2.9%			
DEPOT					
12 NSC-SD	771,500	1,206,840	771,500		
CAP:	1,978,340	61.0%			

SCENARIO 3B (DROPPED DDOU/HILL)

3 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:

SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND, DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	10,230,743	369,257	1,881,500	PDS	
CAP:	10,600,000	3.5%			
DEPOT					
2 DDCO	526,500	1,534,000	526,500		
CAP:	2,060,500	74.4%			
DEPOT					
3 DDRV/NSCN	1,915,250	1,958,750	1,915,250		
CAP:	3,874,000	50.6%			
DEPOT					
4 NSC-C	459,000	544,080	459,000		
CAP:	1,003,080	54.2%			
DEPOT					
5 WRALC	350,000	329,900	350,000		
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	8,166,483	(808,483)	1,195,500	PDS	
CAP:	7,358,000	-11.0%			
DEPOT					
7 RRAD	755,000	1,671,320	755,000		
CAP:	2,426,320	68.9%			
DEPOT					
8 OCALC	344,000	3,267,920	344,000		
CAP:	3,611,920	90.5%			
DEPOT					
9 SAALC	414,000	756,000	414,000		
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	865,500	5,116,020	865,500	***	
CAP:	5,981,520	85.5%			
DEPOT					
11 DDTC/SHAD	7,793,774	(693,774)	1,114,000	PDS	
CAP:	7,100,000	-9.8%			
DEPOT					
12 NSC-SD	771,500	1,206,840	771,500		
CAP:	1,978,340	61.0%			

SCENARIO 3C (DROPPED DDTC/SHAD)

3 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	10,230,743	369,257	1,881,500	PDS	
CAP:	10,600,000	3.5%			
DEPOT					
2 DDCO	526,500	1,534,000	526,500		
CAP:	2,060,500	74.4%			
DEPOT					
3 DDRV/NSCN	1,915,250	1,958,750	1,915,250		
CAP:	3,874,000	50.6%			
DEPOT					
4 NSC-C	459,000	544,080	459,000		
CAP:	1,003,080	54.2%			
DEPOT					
5 WRALC	350,000	329,900	350,000		
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	7,365,957	(7,957)	1,195,500	PDS	
CAP:	7,358,000	-0.1%			
DEPOT					
7 RRAD	755,000	1,671,320	755,000		
CAP:	2,426,320	68.9%			
DEPOT					
8 OCALC	344,000	3,267,920	344,000		
CAP:	3,611,920	90.5%			
DEPOT					
9 SAALC	414,000	756,000	414,000		
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	8,345,801	(2,364,281)	865,500	PDS	
CAP:	5,981,520	-39.5%			
DEPOT					
11 DDTC/SHAD	1,114,000	5,986,000	1,114,000	***	
CAP:	7,100,000	84.3%			
DEPOT					
12 NSC-SD	771,500	1,206,840	771,500		
CAP:	1,978,340	61.0%			

SCENARIO 2A (DROPPED DDMT)

2 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	16,401,199	(5,801,199)	1,881,500	PDS	
CAP:	10,600,000	-54.7%			
DEPOT					
2 DDCO	526,500	1,534,000	526,500		
CAP:	2,060,500	74.4%			
DEPOT					
3 DDRV/NSCN	1,915,250	1,958,750	1,915,250		
CAP:	3,874,000	50.6%			
DEPOT					
4 NSC-C	459,000	544,080	459,000		
CAP:	1,003,080	54.2%			
DEPOT					
5 WRALC	350,000	329,900	350,000		
CAP:	679,900	48.5%			
DEPOT					
6 DDMT	1,195,500	6,162,500	1,195,500	***	
CAP:	7,358,000	83.8%			
DEPOT					
7 RRAD	755,000	1,671,320	755,000		
CAP:	2,426,320	68.9%			
DEPOT					
8 OCALC	344,000	3,267,920	344,000		
CAP:	3,611,920	90.5%			
DEPOT					
9 SAALC	414,000	756,000	414,000		
CAP:	1,170,000	64.6%			
DEPOT					
10 DDOU/HILL	865,500	5,116,020	865,500		
CAP:	5,981,520	85.5%			
DEPOT					
11 DDTTC/SHAD	8,594,301	(1,494,301)	1,114,000	PDS	
CAP:	7,100,000	-21.0%			
DEPOT					
12 NSC-SD	771,500	1,206,840	771,500		
CAP:	1,978,340	61.0%			

APPENDIX E

Scenario Workload and Capacity Data

Sensitivity Analysis

SCENARIO 12 (BASELINE)

Sensitivity Analysis: Reduced Workload

12 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
PERCENT

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDM2/NCAD	5,288,669	5,311,331	1,599,275	PDS	
CAP:	10,600,000	50.1%			
DEPOT					
2 DDCO	1,592,389	468,111	447,525	PDS	
CAP:	2,060,500	22.7%			
DEPOT					
3 DDRV/NSCN	2,941,330	932,670	1,627,963	PDS	
CAP:	3,874,000	24.1%			
DEPOT					
4 NSC-C	774,412	228,668	390,150	PDS	
CAP:	1,003,080	22.8%			
DEPOT					
5 WRALC	2,057,089	(1,377,189)	297,500	PDS	
CAP:	679,900	-202.6%			
DEPOT					
6 DDMT	1,809,995	5,548,005	1,016,175	PDS	
CAP:	7,358,000	75.4%			
DEPOT					
7 RRAD	1,056,922	1,369,398	641,750	PDS	
CAP:	2,426,320	56.4%			
DEPOT					
8 OCALC	1,174,276	2,437,644	292,400	PDS	
CAP:	3,611,920	67.5%			
DEPOT					
9 SAALC	1,327,930	(157,930)	351,900	PDS	
CAP:	1,170,000	-13.5%			
DEPOT					
10 DDOU/HILL	1,583,498	4,398,022	735,675	PDS	
CAP:	5,981,520	73.5%			
DEPOT					
11 DDTC/SHAD	5,365,385	1,734,615	946,900	PDS	
CAP:	7,100,000	24.4%			
DEPOT					
12 NSC-SD	1,932,661	45,679	655,775	PDS	
CAP:	1,978,340	2.3%			

SCENARIO 11 (DROPPED WRALC)
Sensitivity Analysis: Reduced Workload

11 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
PERCENT

DEPOT	TOTAL CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	5,288,669	5,311,331	1,881,500	PDS
CAP:	10,600,000	50.1%		
DEPOT				
2 DDCO	1,592,389	468,111	526,500	PDS
CAP:	2,060,500	22.7%		
DEPOT				
3 DDRV/NSCN	2,941,330	932,670	1,915,250	PDS
CAP:	3,874,000	24.1%		
DEPOT				
4 NSC-C	1,956,946	(953,866)	459,000	PDS
CAP:	1,003,080	-95.1%		
DEPOT				
5 WRALC	297,500	382,400	350,000	***
CAP:	679,900	56.2%		
DEPOT				
6 DDMT	2,387,050	4,970,950	1,195,500	PDS
CAP:	7,358,000	67.6%		
DEPOT				
7 RRAD	1,056,922	1,369,398	755,000	PDS
CAP:	2,426,320	56.4%		
DEPOT				
8 OCALC	1,174,276	2,437,644	344,000	PDS
CAP:	3,611,920	67.5%		
DEPOT				
9 SAALC	1,327,930	(157,930)	414,000	PDS
CAP:	1,170,000	-13.5%		
DEPOT				
10 DDOU/HILL	1,583,498	4,398,022	865,500	PDS
CAP:	5,981,520	73.5%		
DEPOT				
11 DDTG/SHAD	5,365,385	1,734,615	1,114,000	PDS
CAP:	7,100,000	24.4%		
DEPOT				
12 NSC-SD	1,932,661	45,679	771,500	PDS
CAP:	1,978,340	2.3%		

SCENARIO 10 (DROPPED NSC-C)
Sensitivity Analysis: Reduced Workload

10 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
 CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
 PERCENT

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	5,288,669	5,311,331	1,599,275	PDS	
CAP:	10,600,000	50.1%			
DEPOT					
2 DDCO	1,592,389	468,111	447,525	PDS	
CAP:	2,060,500	22.7%			
DEPOT					
3 DDRV/NSCN	4,001,416	(127,416)	1,627,963	PDS	
CAP:	3,874,000	-3.3%			
DEPOT					
4 NSC-C	390,150	612,930	390,150	***	
CAP:	1,003,080	61.1%			
DEPOT					
5 WRALC	297,500	382,400	297,500		
CAP:	679,900	56.2%			
DEPOT					
6 DDMT	2,893,760	4,464,240	1,016,175	PDS	
CAP:	7,358,000	60.7%			
DEPOT					
7 RRAD	1,056,922	1,369,398	641,750	PDS	
CAP:	2,426,320	56.4%			
DEPOT					
8 OCALC	1,174,276	2,437,644	292,400	PDS	
CAP:	3,611,920	67.5%			
DEPOT					
9 SAALC	1,327,930	(157,930)	351,900	PDS	
CAP:	1,170,000	-13.5%			
DEPOT					
10 DDOU/HILL	1,583,498	4,398,022	735,675	PDS	
CAP:	5,981,520	73.5%			
DEPOT					
11 DDTC/SHAD	5,365,385	1,734,615	946,900	PDS	
CAP:	7,100,000	24.4%			
DEPOT					
12 NSC-SD	1,932,661	45,679	655,775	PDS	
CAP:	1,978,340	2.3%			

SCENARIO 9A (DROPPED SAALC)
Sensitivity Analysis: Reduced Workload

9 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
PERCENT

DEPOT	TOTAL CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	5,288,669	5,311,331	1,599,275	PDS
CAP:	10,600,000	50.1%		
DEPOT				
2 DDCO	1,592,389	468,111	447,525	PDS
CAP:	2,060,500	22.7%		
DEPOT				
3 DDRV/NSCN	4,001,416	(127,416)	1,627,963	PDS
CAP:	3,874,000	-3.3%		
DEPOT				
4 NSC-C	390,150	612,930	390,150	
CAP:	1,003,080	61.1%		
DEPOT				
5 WRALC	297,500	382,400	297,500	
CAP:	679,900	56.2%		
DEPOT				
6 DDMT	2,893,760	4,464,240	1,016,175	PDS
CAP:	7,358,000	60.7%		
DEPOT				
7 RRAD	1,903,254	523,066	641,750	PDS
CAP:	2,426,320	21.6%		
DEPOT				
8 OCALC	1,303,974	2,307,946	292,400	PDS
CAP:	3,611,920	63.9%		
DEPOT				
9 SAALC	351,900	818,100	351,900	***
CAP:	1,170,000	69.9%		
DEPOT				
10 DDOU/HILL	1,583,498	4,398,022	735,675	PDS
CAP:	5,981,520	73.5%		
DEPOT				
11 DDTC/SHAD	5,365,385	1,734,615	946,900	PDS
CAP:	7,100,000	24.4%		
DEPOT				
12 NSC-SD	1,932,661	45,679	655,775	PDS
CAP:	1,978,340	2.3%		

SCENARIO 9B (DROPPED RRAD)
Sensitivity Analysis: Reduced Workload

**9 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
 CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS
 50 PERCENT**

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	5,288,669	5,311,331	1,599,275	PDS	
CAP:	10,600,000	50.1%			
DEPOT					
2 DDCO	1,592,389	468,111	447,525	PDS	
CAP:	2,060,500	22.7%			
DEPOT					
3 DDRV/NSCN	4,001,416	(127,416)	1,627,963	PDS	
CAP:	3,874,000	-3.3%			
DEPOT					
4 NSC-C	390,150	612,930	390,150		
CAP:	1,003,080	61.1%			
DEPOT					
5 WRALC	297,500	382,400	297,500		
CAP:	679,900	56.2%			
DEPOT					
6 DDMT	3,157,175	4,200,825	1,016,175	PDS	
CAP:	7,358,000	57.1%			
DEPOT					
7 RRAD	641,750	1,784,570	641,750	***	
CAP:	2,426,320	73.6%			
DEPOT					
8 OCALC	1,326,033	2,285,887	292,400	PDS	
CAP:	3,611,920	63.3%			
DEPOT					
9 SAALC	1,327,930	(157,930)	351,900	PDS	
CAP:	1,170,000	-13.5%			
DEPOT					
10 DDOU/HILL	1,583,498	4,398,022	735,675	PDS	
CAP:	5,981,520	73.5%			
DEPOT					
11 DDTTC/SHAD	5,365,385	1,734,615	946,900	PDS	
CAP:	7,100,000	24.4%			
DEPOT					
12 NSC-SD	1,932,661	45,679	655,775	PDS	
CAP:	1,978,340	2.3%			

SCENARIO 9C (DROPPED OCALC)
Sensitivity Analysis: Reduced Workload

9 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
PERCENT

DEPOT	TOTAL CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	5,288,669	5,311,331	1,599,275	PDS
CAP:	10,600,000	50.1%		
DEPOT				
2 DDCO	1,592,389	468,111	447,525	PDS
CAP:	2,060,500	22.7%		
DEPOT				
3 DDRV/NSCN	4,001,416	(127,416)	1,627,963	PDS
CAP:	3,874,000	-3.3%		
DEPOT				
4 NSC-C	390,150	612,930	390,150	
CAP:	1,003,080	61.1%		
DEPOT				
5 WRALC	297,500	382,400	297,500	
CAP:	679,900	56.2%		
DEPOT				
6 DDMT	2,893,760	4,464,240	1,016,175	PDS
CAP:	7,358,000	60.7%		
DEPOT				
7 RRAD	1,780,176	646,144	641,750	PDS
CAP:	2,426,320	26.6%		
DEPOT				
8 OCALC	292,400	3,319,520	292,400	***
CAP:	3,611,920	91.9%		
DEPOT				
9 SAALC	1,486,553	(316,553)	351,900	PDS
CAP:	1,170,000	-27.1%		
DEPOT				
10 DDOU/HILL	1,583,498	4,398,022	735,675	PDS
CAP:	5,981,520	73.5%		
DEPOT				
11 DDTTC/SHAD	5,365,385	1,734,615	946,900	PDS
CAP:	7,100,000	24.4%		
DEPOT				
12 NSC-SD	1,932,661	45,679	655,775	PDS
CAP:	1,978,340	2.3%		

SCENARIO 9D (DROPPED DDMT)
Sensitivity Analysis: Reduced Workload

9 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
 CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
 PERCENT

DEPOT	TOTAL CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	5,288,669	5,311,331	1,599,275	PDS
CAP:	10,600,000	50.1%		
DEPOT				
2 DDCO	1,805,095	255,405	447,525	PDS
CAP:	2,060,500	12.4%		
DEPOT				
3 DDRV/NSCN	4,445,729	(571,729)	1,627,963	PDS
CAP:	3,874,000	-14.8%		
DEPOT				
4 NSC-C	390,150	612,930	390,150	
CAP:	1,003,080	61.1%		
DEPOT				
5 WRALC	297,500	382,400	297,500	
CAP:	679,900	56.2%		
DEPOT				
6 DDMT	1,016,175	6,341,825	1,016,175	***
CAP:	7,358,000	86.2%		
DEPOT				
7 RRAD	2,061,453	364,867	641,750	PDS
CAP:	2,426,320	15.0%		
DEPOT				
8 OCALC	1,390,312	2,221,608	292,400	PDS
CAP:	3,611,920	61.5%		
DEPOT				
9 SAALC	1,327,930	(157,930)	351,900	PDS
CAP:	1,170,000	-13.5%		
DEPOT				
10 DDOU/HILL	1,583,498	4,398,022	735,675	PDS
CAP:	5,981,520	73.5%		
DEPOT				
11 DDTTC/SHAD	5,365,385	1,734,615	946,900	PDS
CAP:	7,100,000	24.4%		
DEPOT				
12 NSC-SD	1,932,661	45,679	655,775	PDS
CAP:	1,978,340	2.3%		

SCENARIO 8A (DROPPED OCALC)
Sensitivity Analysis: Reduced Workload

8 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
PERCENT

DEPOT	TOTAL CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	5,288,669	5,311,331	1,599,275	PDS
CAP:	10,600,000	50.1%		
DEPOT				
2 DDCO	1,592,389	468,111	447,525	PDS
CAP:	2,060,500	22.7%		
DEPOT				
3 DDRV/NSCN	4,001,416	(127,416)	1,627,963	PDS
CAP:	3,874,000	-3.3%		
DEPOT				
4 NSC-C	390,150	612,930	390,150	
CAP:	1,003,080	61.1%		
DEPOT				
5 WRALC	297,500	382,400	297,500	
CAP:	679,900	56.2%		
DEPOT				
6 DDMT	3,588,783	3,769,217	1,016,175	PDS
CAP:	7,358,000	51.2%		
DEPOT				
7 RRAD	641,750	1,784,570	641,750	
CAP:	2,426,320	73.6%		
DEPOT				
8 OCALC	292,400	3,319,520	292,400	***
CAP:	3,611,920	91.9%		
DEPOT				
9 SAALC	1,929,956	(759,956)	351,900	PDS
CAP:	1,170,000	-65.0%		
DEPOT				
10 DDOU/HILL	1,583,498	4,398,022	735,675	PDS
CAP:	5,981,520	73.5%		
DEPOT				
11 DDTC/SHAD	5,365,385	1,734,615	946,900	PDS
CAP:	7,100,000	24.4%		
DEPOT				
12 NSC-SD	1,932,661	45,679	655,775	PDS
CAP:	1,978,340	2.3%		

SCENARIO 8B (DROPPED SAALC)
Sensitivity Analysis: Reduced Workload

8 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
 CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
 PERCENT

DEPOT	TOTAL CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	5,288,669	5,311,331	1,599,275	PDS
CAP:	10,600,000	50.1%		
DEPOT				
2 DDCO	1,592,389	468,111	447,525	PDS
CAP:	2,060,500	22.7%		
DEPOT				
3 DDRV/NSCN	4,001,416	(127,416)	1,627,963	PDS
CAP:	3,874,000	-3.3%		
DEPOT				
4 NSC-C	390,150	612,930	390,150	
CAP:	1,003,080	61.1%		
DEPOT				
5 WRALC	297,500	382,400	297,500	
CAP:	679,900	56.2%		
DEPOT				
6 DDMT	3,157,175	4,200,825	1,016,175	PDS
CAP:	7,358,000	57.1%		
DEPOT				
7 RRAD	641,750	1,784,570	641,750	
CAP:	2,426,320	73.6%		
DEPOT				
8 OCALC	2,302,063	1,309,857	292,400	PDS
CAP:	3,611,920	36.3%		
DEPOT				
9 SAALC	351,900	818,100	351,900	***
CAP:	1,170,000	69.9%		
DEPOT				
10 DDOU/HILL	1,583,498	4,398,022	735,675	PDS
CAP:	5,981,520	73.5%		
DEPOT				
11 DDTC/SHAD	5,365,385	1,734,615	946,900	PDS
CAP:	7,100,000	24.4%		
DEPOT				
12 NSC-SD	1,932,661	45,679	655,775	PDS
CAP:	1,978,340	2.3%		

SCENARIO 8C (DROPPED DDMT)
Sensitivity Analysis: Reduced Workload

8 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
PERCENT

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	5,288,669	5,311,331	1,599,275	PDS	
CAP:	10,600,000	50.1%			
DEPOT					
2 DDCO	2,382,150	(321,650)	447,525	PDS	
CAP:	2,060,500	-15.6%			
DEPOT					
3 DDRV/NSCN	4,508,126	(634,126)	1,627,963	PDS	
CAP:	3,874,000	-16.4%			
DEPOT					
4 NSC-C	390,150	612,930	390,150		
CAP:	1,003,080	61.1%			
DEPOT					
5 WRALC	297,500	382,400	297,500		
CAP:	679,900	56.2%			
DEPOT					
6 DDMT	1,016,175	6,341,825	1,016,175	***	
CAP:	7,358,000	86.2%			
DEPOT					
7 RRAD	641,750	1,784,570	641,750		
CAP:	2,426,320	73.6%			
DEPOT					
8 OCALC	2,050,543	1,561,377	292,400	PDS	
CAP:	3,611,920	43.2%			
DEPOT					
9 SAALC	1,447,950	(277,950)	351,900	PDS	
CAP:	1,170,000	-23.8%			
DEPOT					
10 DDOU/HILL	1,583,498	4,398,022	735,675	PDS	
CAP:	5,981,520	73.5%			
DEPOT					
11 DDTTC/SHAD	5,365,385	1,734,615	946,900	PDS	
CAP:	7,100,000	24.4%			
DEPOT					
12 NSC-SD	1,932,661	45,679	655,775	PDS	
CAP:	1,978,340	2.3%			

SCENARIO 7A (DROPPED OCALC)
Sensitivity Analysis: Reduced Workload

7 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
 CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
 PERCENT

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	5,288,669	5,311,331	1,599,275	PDS	
CAP:	10,600,000	50.1%			
DEPOT					
2 DDCO	1,592,389	468,111	447,525	PDS	
CAP:	2,060,500	22.7%			
DEPOT					
3 DDRV/NSCN	4,001,416	(127,416)	1,627,963	PDS	
CAP:	3,874,000	-3.3%			
DEPOT					
4 NSC-C	390,150	612,930	390,150		
CAP:	1,003,080	61.1%			
DEPOT					
5 WRALC	297,500	382,400	297,500		
CAP:	679,900	56.2%			
DEPOT					
6 DDMT	4,878,518	2,479,482	1,016,175	PDS	
CAP:	7,358,000	33.7%			
DEPOT					
7 RRAD	641,750	1,784,570	641,750		
CAP:	2,426,320	73.6%			
DEPOT					
8 OCALC	292,400	3,319,520	292,400	***	
CAP:	3,611,920	91.9%			
DEPOT					
9 SAALC	351,900	818,100	351,900		
CAP:	1,170,000	69.9%			
DEPOT					
10 DDOU/HILL	1,871,818	4,109,702	735,675	PDS	
CAP:	5,981,520	68.7%			
DEPOT					
11 DDTC/SHAD	5,365,385	1,734,615	946,900	PDS	
CAP:	7,100,000	24.4%			
DEPOT					
12 NSC-SD	1,932,661	45,679	655,775	PDS	
CAP:	1,978,340	2.3%			

SCENARIO 7B (DROPPED DDMT)
Sensitivity Analysis: Reduced Workload

7 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD

IN ADDITION:

SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
PERCENT

DEPOT	TOTAL CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	5,288,669	5,311,331	1,599,275	PDS
CAP:	10,600,000	50.1%		
DEPOT				
2 DDCO	2,382,150	(321,650)	447,525	PDS
CAP:	2,060,500	-15.6%		
DEPOT				
3 DDRV/NSCN	4,508,126	(634,126)	1,627,963	PDS
CAP:	3,874,000	-16.4%		
DEPOT				
4 NSC-C	390,150	612,930	390,150	
CAP:	1,003,080	61.1%		
DEPOT				
5 WRALC	297,500	382,400	297,500	
CAP:	679,900	56.2%		
DEPOT				
6 DDMT	1,016,175	6,341,825	1,016,175	***
CAP:	7,358,000	86.2%		
DEPOT				
7 RRAD	641,750	1,784,570	641,750	
CAP:	2,426,320	73.6%		
DEPOT				
8 OCALC	3,146,593	465,327	292,400	PDS
CAP:	3,611,920	12.9%		
DEPOT				
9 SAALC	351,900	818,100	351,900	
CAP:	1,170,000	69.9%		
DEPOT				
10 DDOU/HILL	1,583,498	4,398,022	735,675	PDS
CAP:	5,981,520	73.5%		
DEPOT				
11 DDTG/SHAD	5,365,385	1,734,615	946,900	PDS
CAP:	7,100,000	24.4%		
DEPOT				
12 NSC-SD	1,932,661	45,679	655,775	PDS
CAP:	1,978,340	2.3%		

SCENARIO 6A (DROPPED DDCO)
Sensitivity Analysis: Reduced Workload

6 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
PERCENT

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	5,726,812	4,873,188	1,599,275	PDS	
CAP:	10,600,000	46.0%			
DEPOT					
2 DDCO	447,525	1,612,975	447,525	***	
CAP:	2,060,500	78.3%			
DEPOT					
3 DDRV/NSCN	4,001,416	(127,416)	1,627,963	PDS	
CAP:	3,874,000	-3.3%			
DEPOT					
4 NSC-C	390,150	612,930	390,150		
CAP:	1,003,080	61.1%			
DEPOT					
5 WRALC	297,500	382,400	297,500		
CAP:	679,900	56.2%			
DEPOT					
6 DDMT	5,585,239	1,772,761	1,016,175	PDS	
CAP:	7,358,000	24.1%			
DEPOT					
7 RRAD	641,750	1,784,570	641,750		
CAP:	2,426,320	73.6%			
DEPOT					
8 OCALC	292,400	3,319,520	292,400		
CAP:	3,611,920	91.9%			
DEPOT					
9 SAALC	351,900	818,100	351,900		
CAP:	1,170,000	69.9%			
DEPOT					
10 DDOU/HILL	1,871,818	4,109,702	735,675	PDS	
CAP:	5,981,520	68.7%			
DEPOT					
11 DDTC/SHAD	5,365,385	1,734,615	946,900	PDS	
CAP:	7,100,000	24.4%			
DEPOT					
12 NSC-SD	1,932,661	45,679	655,775	PDS	
CAP:	1,978,340	2.3%			

SCENARIO 6B (DROPPED DDRV/NSC-N)
Sensitivity Analysis: Reduced Workload

6 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
PERCENT

DEPOT	TOTAL CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	6,602,036	3,997,964	1,599,275	PDS
CAP:	10,600,000	37.7%		
DEPOT				
2 DDCO	1,976,651	83,849	447,525	PDS
CAP:	2,060,500	4.1%		
DEPOT				
3 DDRV/NSCN	1,627,963	2,246,038	1,627,963	***
CAP:	3,874,000	58.0%		
DEPOT				
4 NSC-C	390,150	612,930	390,150	
CAP:	1,003,080	61.1%		
DEPOT				
5 WRALC	297,500	382,400	297,500	
CAP:	679,900	56.2%		
DEPOT				
6 DDMT	5,554,342	1,803,658	1,016,175	PDS
CAP:	7,358,000	24.5%		
DEPOT				
7 RRAD	641,750	1,784,570	641,750	
CAP:	2,426,320	73.6%		
DEPOT				
8 OCALC	292,400	3,319,520	292,400	
CAP:	3,611,920	91.9%		
DEPOT				
9 SAALC	351,900	818,100	351,900	
CAP:	1,170,000	69.9%		
DEPOT				
10 DDOU/HILL	1,871,818	4,109,702	735,675	PDS
CAP:	5,981,520	68.7%		
DEPOT				
11 DDTTC/SHAD	5,365,385	1,734,615	946,900	PDS
CAP:	7,100,000	24.4%		
DEPOT				
12 NSC-SD	1,932,661	45,679	655,775	PDS
CAP:	1,978,340	2.3%		

SCENARIO 6C (DROPPED DDMP)
Sensitivity Analysis: Reduced Workload

6 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
PERCENT

DEPOT		TOTAL CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	1,599,275	9,000,725	1,599,275	***	
CAP:	10,600,000	84.9%			
DEPOT					
2 DDCO	3,465,083	(1,404,583)	447,525	PDS	
CAP:	2,060,500	-68.2%			
DEPOT					
3 DDRV/NSCN	5,818,116	(1,944,116)	1,627,963	PDS	
CAP:	3,874,000	-50.2%			
DEPOT					
4 NSC-C	390,150	612,930	390,150		
CAP:	1,003,080	61.1%			
DEPOT					
5 WRALC	297,500	382,400	297,500		
CAP:	679,900	56.2%			
DEPOT					
6 DDMT	4,878,518	2,479,482	1,016,175	PDS	
CAP:	7,358,000	33.7%			
DEPOT					
7 RRAD	641,750	1,784,570	641,750		
CAP:	2,426,320	73.6%			
DEPOT					
8 OCALC	292,400	3,319,520	292,400		
CAP:	3,611,920	91.9%			
DEPOT					
9 SAALC	351,900	818,100	351,900		
CAP:	1,170,000	69.9%			
DEPOT					
10 DDOU/HILL	1,871,818	4,109,702	735,675	PDS	
CAP:	5,981,520	68.7%			
DEPOT					
11 DDTC/SHAD	5,365,385	1,734,615	946,900	PDS	
CAP:	7,100,000	24.4%			
DEPOT					
12 NSC-SD	1,932,661	45,679	655,775	PDS	
CAP:	1,978,340	2.3%			

SCENARIO 5 (DROPPED DDCO)
Sensitivity Analysis: Reduced Workload

5 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS WORKLOAD DECREASED 15 PERCENT, EAST COAST OS 50
PERCENT

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	7,424,441	3,175,559	1,599,275	PDS	
CAP:	10,600,000	30.0%			
DEPOT					
2 DDCO	447,525	1,612,975	447,525	***	
CAP:	2,060,500	78.3%			
DEPOT					
3 DDRV/NSCN	1,627,963	2,246,038	1,627,963		
CAP:	3,874,000	58.0%			
DEPOT					
4 NSC-C	390,150	612,930	390,150		
CAP:	1,003,080	61.1%			
DEPOT					
5 WRALC	297,500	382,400	297,500		
CAP:	679,900	56.2%			
DEPOT					
6 DDMT	6,261,063	1,096,937	1,016,175	PDS	
CAP:	7,358,000	14.9%			
DEPOT					
7 RRAD	641,750	1,784,570	641,750		
CAP:	2,426,320	73.6%			
DEPOT					
8 OCALC	292,400	3,319,520	292,400		
CAP:	3,611,920	91.9%			
DEPOT					
9 SAALC	351,900	818,100	351,900		
CAP:	1,170,000	69.9%			
DEPOT					
10 DDOU/HILL	1,871,818	4,109,702	735,675	PDS	
CAP:	5,981,520	68.7%			
DEPOT					
11 DDTC/SHAD	5,365,385	1,734,615	946,900	PDS	
CAP:	7,100,000	24.4%			
DEPOT					
12 NSC-SD	1,932,661	45,679	655,775	PDS	
CAP:	1,978,340	2.3%			

SCENARIO 4 (DROPPED NSC-SD)
Sensitivity Analysis: Reduced Workload

4 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND BIA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS DEMAND REDUCED 15 PERCENT, EAST COAST OVERSEAS 50
PERCENT

DEPOT	TOTAL	CAP REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	7,424,441	3,175,559	1,599,275	PDS
CAP:	10,600,000	30.0%		
DEPOT				
2 DDCO	447,525	1,612,975	447,525	
CAP:	2,060,500	78.3%		
DEPOT				
3 DDRV/NSCN	1,627,963	2,246,038	1,627,963	
CAP:	3,874,000	58.0%		
DEPOT				
4 NSC-C	390,150	612,930	390,150	
CAP:	1,003,080	61.1%		
DEPOT				
5 WRALC	297,500	382,400	297,500	
CAP:	679,900	56.2%		
DEPOT				
6 DDMT	6,261,063	1,096,937	1,016,175	PDS
CAP:	7,358,000	14.9%		
DEPOT				
7 RRAD	641,750	1,784,570	641,750	
CAP:	2,426,320	73.6%		
DEPOT				
8 OCALC	292,400	3,319,520	292,400	
CAP:	3,611,920	91.9%		
DEPOT				
9 SAALC	351,900	818,100	351,900	
CAP:	1,170,000	69.9%		
DEPOT				
10 DDOU/HILL	2,179,436	3,802,084	735,675	PDS
CAP:	5,981,520	63.6%		
DEPOT				
11 DDTC/SHAD	6,334,653	765,347	946,900	PDS
CAP:	7,100,000	10.8%		
DEPOT				
12 NSC-SD	655,775	1,322,565	655,775	***
CAP:	1,978,340	66.9%		

SCENARIO 3A (DROPPED DDMT)
Sensitivity Analysis: Reduced Workload

3 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS DEMAND REDUCED 15PERCENT, EAST COAST OVERSEAS 50
PERCENT

DEPOT	TOTAL CAP	REMAIN	"FIXED" WKLD	PDS
1 DDMP/NCAD	11,099,743	(499,743)	1,599,275	PDS
CAP:	10,600,000	-4.7%		
DEPOT				
2 DDCO	447,525	1,612,975	447,525	
CAP:	2,060,500	78.3%		
DEPOT				
3 DDRV/NSCN	1,627,963	2,246,038	1,627,963	
CAP:	3,874,000	58.0%		
DEPOT				
4 NSC-C	390,150	612,930	390,150	
CAP:	1,003,080	61.1%		
DEPOT				
5 WRALC	297,500	382,400	297,500	
CAP:	679,900	56.2%		
DEPOT				
6 DDMT	1,016,175	6,341,825	1,016,175	***
CAP:	7,358,000	86.2%		
DEPOT				
7 RRAD	641,750	1,784,570	641,750	
CAP:	2,426,320	73.6%		
DEPOT				
8 OCALC	292,400	3,319,520	292,400	
CAP:	3,611,920	91.9%		
DEPOT				
9 SAALC	351,900	818,100	351,900	
CAP:	1,170,000	69.9%		
DEPOT				
10 DDOU/HILL	3,749,022	2,232,498	735,675	PDS
CAP:	5,981,520	37.3%		
DEPOT				
11 DDTC/SHAD	6,334,653	765,347	946,900	PDS
CAP:	7,100,000	10.8%		
DEPOT				
12 NSC-SD	655,775	1,322,565	655,775	
CAP:	1,978,340	66.9%		

SCENARIO 3B (DROPPED DDOU/HILL)
Sensitivity Analysis: Reduced Workload

3 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
 IN ADDITION:
 SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
 AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
 CONUS WORKLOAD REDUCED 15 PERCENT, EAST COAST OVERSEAS 50
 PERCENT

DEPOT	TOTAL	CAP	REMAIN "FIXED" WKLD	
1 DDMP/ECAD	7,424,441	3,175,559	1,599,275	PDS
CAP:	10,600,000	30.0%		
DEPOT				
2 DDCO	447,525	1,612,975	447,525	
CAP:	2,060,500	78.3%		
DEPOT				
3 DDRV/NSCN	1,627,963	2,246,038	1,627,963	
CAP:	3,874,000	58.0%		
DEPOT				
4 NSC-C	390,150	612,930	390,150	
CAP:	1,003,080	61.1%		
DEPOT				
5 WRALC	297,500	382,400	297,500	
CAP:	679,900	56.2%		
DEPOT				
6 DDMT	6,941,511	416,489	1,016,175	PDS
CAP:	7,358,000	5.7%		
DEPOT				
7 RRAD	641,750	1,784,570	641,750	
CAP:	2,426,320	73.6%		
DEPOT				
8 OCALC	292,400	3,319,520	292,400	
CAP:	3,611,920	91.9%		
DEPOT				
9 SAALC	351,900	818,100	351,900	
CAP:	1,170,000	69.9%		
DEPOT				
10 DDOU/HILL	735,675	5,245,845	735,675	***
CAP:	5,981,520	87.7%		
DEPOT				
11 DDTC/SHAD	7,097,967	2,033	946,900	PDS
CAP:	7,100,000	0.0%		
DEPOT				
12 NSC-SD	655,775	1,322,565	655,775	
CAP:	1,978,340	66.9%		

SCENARIO 3C (DROPPED DDTC/SHAD)
Sensitivity Analysis: Reduced Workload

3 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:

SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS DEMAND REDUCED 15 PERCENT, EAST COAST OVERSEAS 50
PERCENT

DEPOT	TOTAL	CAP	REMAIN "FIXED" WKLD	
1 DDMP/NCAD	7,424,441	3,175,559	1,599,275	PDS
CAP:	10,600,000	30.0%		
DEPOT				
2 DDCO	447,525	1,612,975	447,525	
CAP:	2,060,500	78.3%		
DEPOT				
3 DDRV/NSCN	1,627,963	2,246,038	1,627,963	
CAP:	3,874,000	58.0%		
DEPOT				
4 NSC-C	390,150	612,930	390,150	
CAP:	1,003,080	61.1%		
DEPOT				
5 WRALC	297,500	382,400	297,500	
CAP:	679,900	56.2%		
DEPOT				
6 DDMT	6,261,063	1,096,937	1,016,175	PDS
CAP:	7,358,000	14.9%		
DEPOT				
7 RRAD	641,750	1,784,570	641,750	
CAP:	2,426,320	73.6%		
DEPOT				
8 OCALC	292,400	3,319,520	292,400	
CAP:	3,611,920	91.9%		
DEPOT				
9 SAALC	351,900	818,100	351,900	
CAP:	1,170,000	69.9%		
DEPOT				
10 DDOU/HILL	7,567,189	(1,585,669)	735,675	PDS
CAP:	5,981,520	-26.5%		
DEPOT				
11 DDTC/SHAD	946,900	6,153,100	946,900	***
CAP:	7,100,000	86.7%		
DEPOT				
12 NSC-SD	655,775	1,322,565	655,775	
CAP:	1,978,340	66.9%		

SCENARIO 2 (DROPPED DDMT)

Sensitivity Analysis: Reduced Workload

2 DEPOT SCENARIO, DISTRIBUTING 22M MRO PDS WORKLOAD
IN ADDITION:
SERVICE DEPOTS RETAIN ONE-HALF OF THEIR CURRENT WORKLOAD,
AND DLA DEPOTS RETAIN ONE-FOURTH OF THEIR CURRENT WORKLOAD
CONUS DEMAND REDUCED 15 PERCENT, EAST COAST OVERSEAS 50
PERCENT

DEPOT	TOTAL	CAP	REMAIN	"FIXED" WKLD	
1 DDMP/NCAD	12,669,329	(2,069,329)	1,599,275	PDS	
CAP:	10,600,000	-19.5%			
DEPOT					
2 DDCO	447,525	1,612,975	447,525		
CAP:	2,060,500	78.3%			
DEPOT					
3 DDRV/NSCN	1,627,963	2,246,038	1,627,963		
CAP:	3,874,000	58.0%			
DEPOT					
4 NSC-C	390,150	612,930	390,150		
CAP:	1,003,080	61.1%			
DEPOT					
5 WRALC	297,500	382,400	297,500		
CAP:	679,900	56.2%			
DEPOT					
6 DDMT	1,016,175	6,341,825	1,016,175	***	
CAP:	7,358,000	86.2%			
DEPOT					
7 RRAD	641,750	1,784,570	641,750		
CAP:	2,426,320	73.6%			
DEPOT					
8 OALC	292,400	3,319,520	292,400		
CAP:	3,611,920	91.9%			
DEPOT					
9 SAALC	351,900	818,100	351,900		
CAP:	1,170,000	69.9%			
DEPOT					
10 DDOU/HILL	735,675	5,245,845	735,675		
CAP:	5,981,520	87.7%			
DEPOT					
11 DDTTC/SHAD	7,778,414	(678,414)	946,900	PDS	
CAP:	7,100,000	-9.6%			
DEPOT					
12 NSC-SD	655,775	1,322,565	655,775		
CAP:	1,978,340	66.9%			

REPORT DOCUMENTATION PAGEForm Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE August 1991	3. REPORT TYPE AND DATES COVERED Final	
4. TITLE AND SUBTITLE Primary Distribution Site (PDS) Location Analysis			5. FUNDING NUMBERS	
6. AUTHOR(S) Capt David Bertrand, USAF				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) HQ Defense Logistics Agency Operations Research and Economic Analysis Office (DLA-LO) Cameron Station Alexandria, VA 22304-6100			8. PERFORMING ORGANIZATION REPORT NUMBER DLA-91-P10173	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Defense Logistics Agency (DLA-OC) Cameron Station Alexandria, VA 22304-6100			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Public Release; Unlimited Distribution			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) This report presents the results of an analysis of alternative configurations for the consolidation of Department of Defense Supply Depots. This consolidation is being undertaken by the Defense Logistics Agency (DLA) under Defense Management Review Decision 902. The DLA Depot Consolidation Office has developed a concept for managing the consolidation depots using Primary Distribution Sites (PDSs). Given acceptance of the PDS concept, the purpose of this analysis was to determine how many PDSs there should be, and where they should be located.				
14. SUBJECT TERMS Depot Consolidation, Distribution, Supply			15. NUMBER OF PAGES 87	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT	